February, 1945

TECHNOLOGY D

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DETROIT

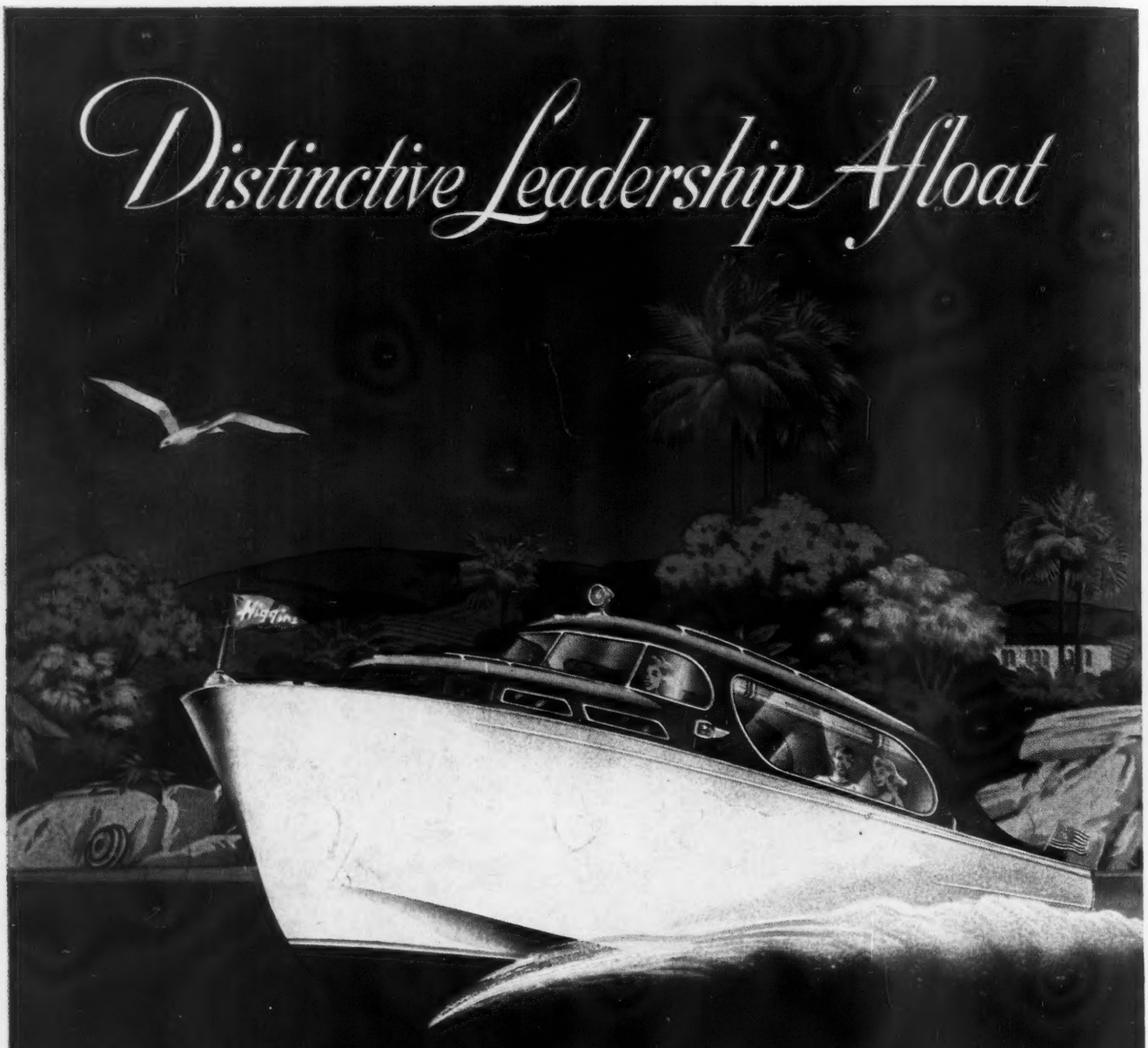
Yachting

SAILING IN SOUTH AFRICA ☆ CONFESSIONS OF A DAY SAILOR

BRIGHT LIGHTS ☆ AIR-SEA RESCUE

BOUND SOUTH IN WARTIME ☆ THE MARCH OF SIMPLICITY

Distinctive Leadership Afloat



Life holds no deeper contentment than cruising along America's own semi-tropical waters. Especially so when the craft is a dependable, sleek Higgins beauty such as the P. T. Junior, sedan model pictured here. This is one of a line comprising no less than 18 separate types, each one of which embodies those superb qualities of design, construction and powering that only the advanced Higgins technique can impart.

Write today to establish your priority for immediate postwar order-of-delivery.

J. BARRETT

Higgins
INDUSTRIES INCORPORATED
NEW ORLEANS

WORLD'S FINEST BOATS BY THE WORLD'S LARGEST BUILDERS

YACHTING, February, 1945. Vol. 77, No. 2. Published monthly at 10 Ferry Street, Concord, N. H. Editorial, Circulation and Advertising Offices, 205 East 42nd Street, New York 17, N. Y. $4.00 a year, 50 cents a copy. Entered as Second-Class matter at the Post Office at Concord, N. H., under the Act of March 3, 1879.

"ELSIE," THE Fogmaker

USED primarily to throw a protective fog screen around landing craft, these speedy 36½-ft. LCS's—known to the Navy as one of the "Elsies"—can also dish it out with deadly machine gun and rocket fire.

One of the important builders of "Elsies" and numerous other naval craft is the Owens Yacht Company. From their war experience, coupled with a traditional reputation for fine boat building, will come Owens-built postwar cruisers worth waiting for. And in the pleasure craft of tomorrow—as in all types of war craft today—the effective lubrication necessary for dependable engine performance will be assured through use of Texaco.

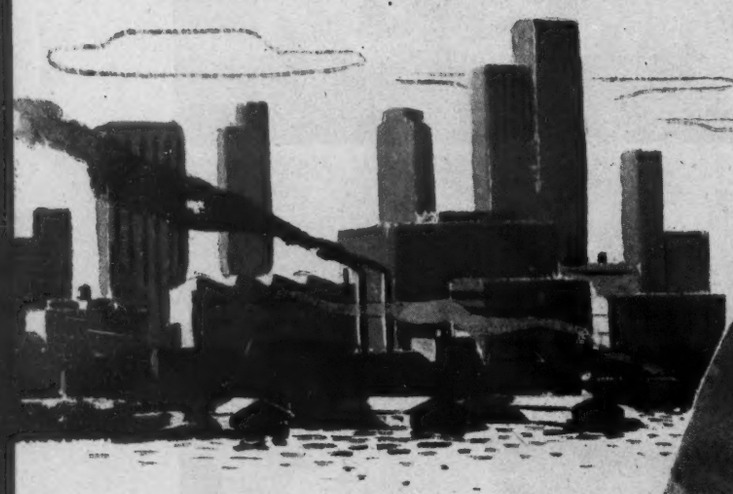
Texaco Marine Motor Oil assures full power and fuel economy by keeping engines clean, rings free, valves active, ports clear.

Texaco Marine Lubricants are used by the Army, Navy, Coast Guard, U. S. Engineers, and a majority of operators of WSA vessels.

Texaco Waterfront Dealers are everywhere. Call upon them freely. The Texas Company, *Marine Sales Division*, 135 East 42nd Street, New York 17, N. Y.

TUNE IN THE TEXACO STAR THEATRE WITH JAMES MELTON SUNDAY NIGHTS ★ METROPOLITAN OPERA BROADCASTS SATURDAY AFTERNOONS

Built to meet



Diesel-Electric ferries are building a fine reputation for performance.

Diesel-Electric-drive ferries are building a fine reputation for performance. To pay their way these busy shuttling ferries have to keep steadily at their timetable job. It's forward and stop, back and stop, all day long. Scarcely any other installation demands so much in dependability, maneuverability, and ready response from the power plant. With their General Motors Diesel-Electric drive, these boats are setting imposing records of on-time, profitable performance.

KEEP AMERI

a Timetable Job

GM
GENERAL MOTORS
DIESEL POWER

ENGINES..150 to 2000 H.P. **CLEVELAND DIESEL ENGINE DIVISION,** Cleveland 11, O.

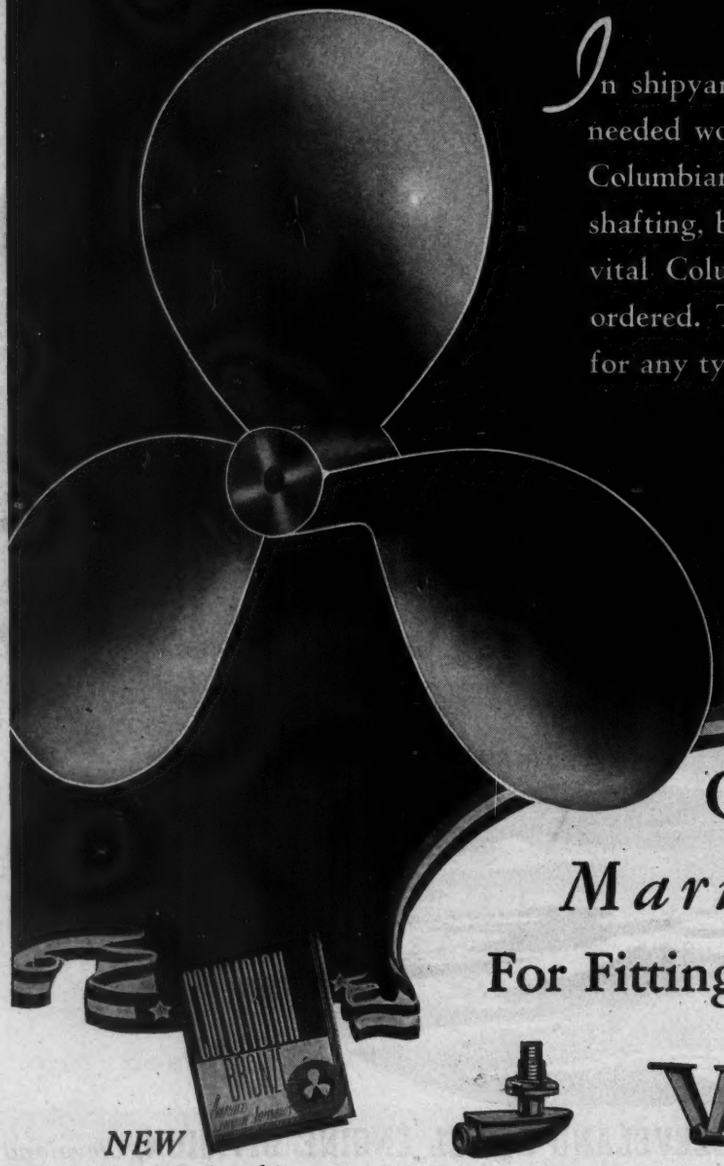
ENGINES.....15 to 250 H.P. DETROIT DIESEL ENGINE DIVISION, Detroit 23, Mich.

LOCOMOTIVES..... ELECTRO-MOTIVE DIVISION, La Grange, Ill.

STRONG • BUY MORE WAR BONDS

The STANDARD OF EXCELLENCE

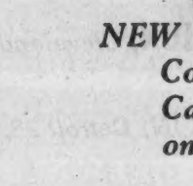
COLUMBIAN BRONZE
Propellers & Fittings



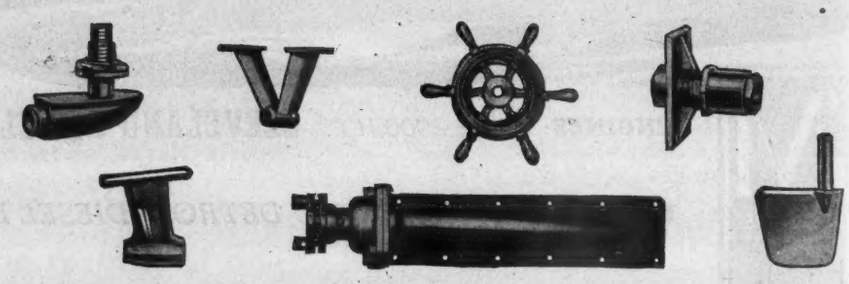
In shipyards where keels are being laid for needed work boats, there you will find that Columbian Propellers, as well as Columbian shafting, bearings, shaftlogs and many other vital Columbian Bronze fittings have been ordered. To specify COLUMBIAN fittings for any type of craft is to guarantee the best in long wearing, high performance equipment.

BUY BONDS FOR VICTORY

COLUMBIAN
Marine Accessories
For Fitting-out Well Built Boats



NEW Columbian Catalog Sent on Request



COLUMBIAN BRONZE CORPORATION
Freeport, Long Island, New York

NOW for the Navy... and the Army...

AND LATER ON for You

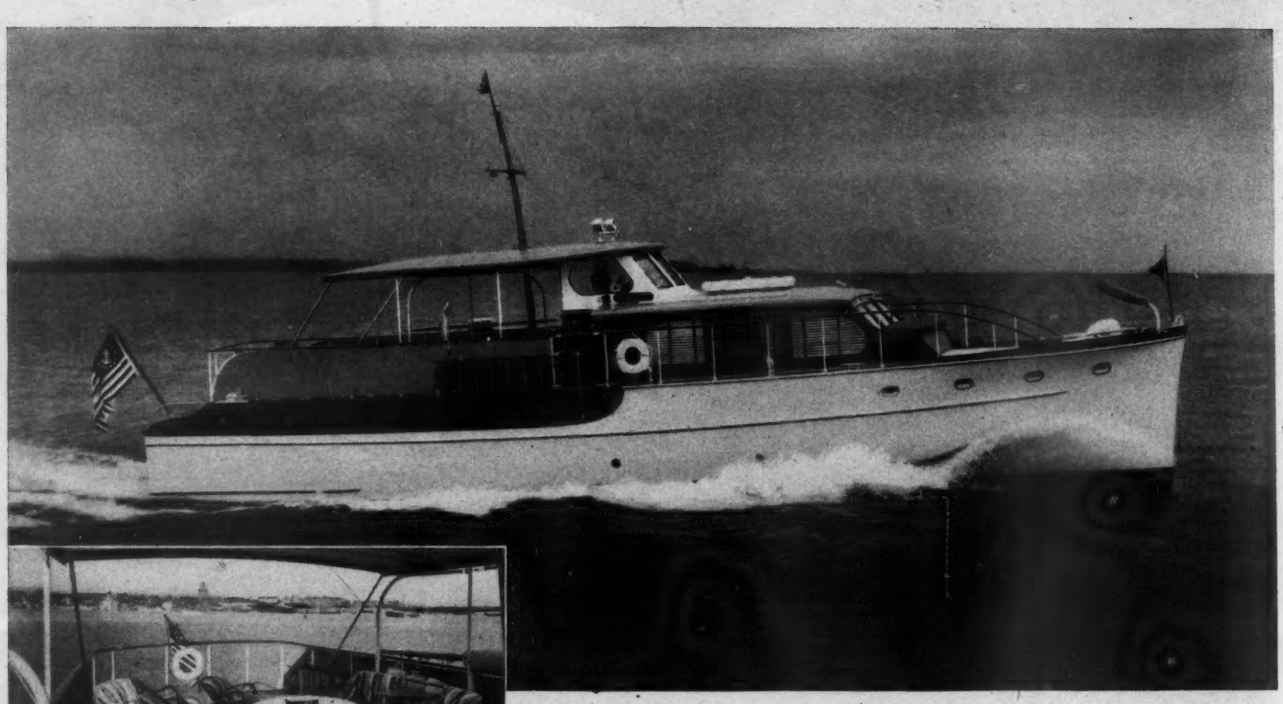
FOR several years now our yard has been 100% occupied with work for a sailor by the name of Uncle Sam. We've turned out some neat jobs for him, if we do say so.

The minute he's through with us, we'll be ready to turn back to peacetime building. Big or little, sail or motor, coastwise or ocean-going, pleasure or commercial, your boat is our business. Build or rebuild, haul or overhaul, we'll do the job with maximum efficiency and at reasonable cost.

JAKOBSON
SHIPYARD, INC.

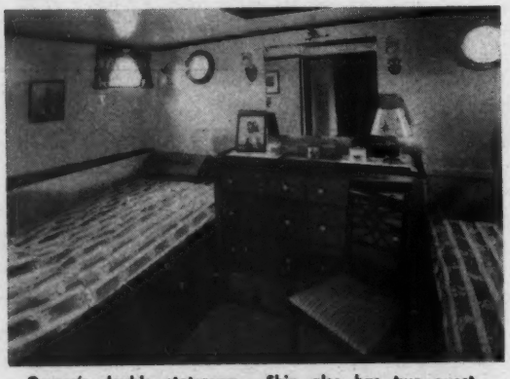
Master Boat Builders
For 48 Years

OYSTER BAY NEW YORK



Lounging deck looking aft. Continuous teak deck, 15 feet wide, stretches almost full length of ship. Hull double planked with Everdur bronze fastenings.

This partial view of dining salon gives some idea of ship's luxurious accommodations. Interior finished in selected hardwoods.



Owner's double stateroom. Ship also has two guest double staterooms. Hot and cold running water, electric toilets, venetian blinds.

Picture Tour of the New *Annapolis "60"*

Above you see the "Shangri-La." She's a 57 foot twin screw Diesel. The pictures at left show some of the reasons why she is considered by many one of the most luxurious and best arranged yachts of her size ever built. Features not shown include a full-width galley equipped with gas range and two shower baths located in the owner's quarters. Spacious quarters and shower are also provided for the crew.

Now add three feet to the Shangri-La's length. Then add many of the scientific improvements in machinery, electrical equipment and mechanical conveniences developed during the war and you've got the new post-war Annapolis "60" . . . a superbly designed yacht which brings custom-built luxury to a standardized cruiser.

The Annapolis "60" is no vague, mysterious post-war dream boat . . . still waiting to be designed. It's here, now . . . tested and proven . . . ready to go into production the instant Uncle Sam tells us we can once again build for your fun and relaxation. Get the full story on the new Annapolis "60" now. Write for new descriptive booklet today.

Annapolis

YACHT YARD, Inc.

ANNAPOLIS • MARYLAND

SHIPYARD ESTABLISHED 1857

"Daily Fuel Costs Cut

. . . FROM $12 to $15 PER DAY, DOWN TO A LOW OF $1.50" — *Says Captain Sam Good*

"THE photographs of the 'Helen G.' are enclosed. Take your pick. I'm mighty proud of her—especially since I repowered with two of your Kermath Diesel 6-288, 84 h.p. engines. My boat is a 42 foot sport fishing party model used exclusively for charter, and every party I've taken out has been delighted with the accomodations and the very fine performance of these full Diesel power plants. They purr like a pair of kittens, but pack a real power wallop when we step out.

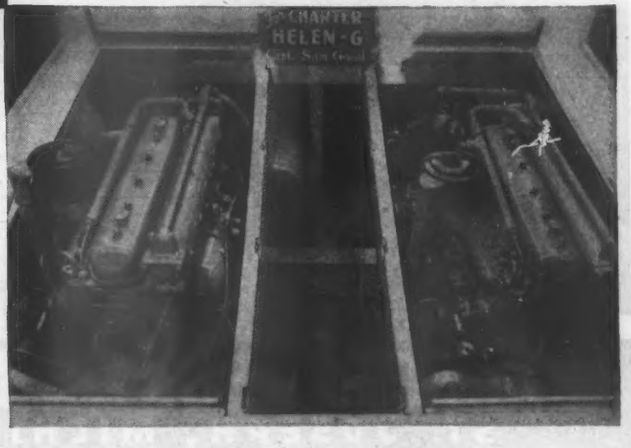
"Well, Mr. Hellmuth, I thought I was getting the usual bilgewater tossed at me when they told me your Diesel sixes would stay put and deliver real economy. But, honestly, I've cut my daily fuel costs from around $12.00 to $15.00 per day down to an average of $1.50. And ever since the motors were installed, the 'Helen G.' has been operating every single day—from 10 to 11 hours—without a stop. That's some running.

"Not a minute's trouble—not a single complaint and both engines handle perfectly from the bridge. We actually get a top speed of 18 miles per hour and that isn't exactly peanuts for an 11 ton job. Those Diesels can sure cut the buck—and I don't mean maybe."

Captain Sam Good
Aboard the "Helen G."
Brielle, N. J.

The "Helen G." is a stout 42' 6" x 12' beam 11 ton sport fishing boat that has been repowered with twin 84 h.p. Kermath Diesels to give it a top speed of 18 miles per hour. Owner, Captain Sam Good of Brielle, N. J.

View showing the extremely compact installation features built into Kermath's all inclusive series of Marine Diesels ranging from 27 h.p. to 160 h.p.



KERMATH MFG. COMPANY
5893 Commonwealth Avenue • Detroit 8, Michigan
Canadian Factory
619 King St., W. • Toronto 2, Ont.

KERMATH
MARINE DIESELS

YOUR HEARTS DESIRE

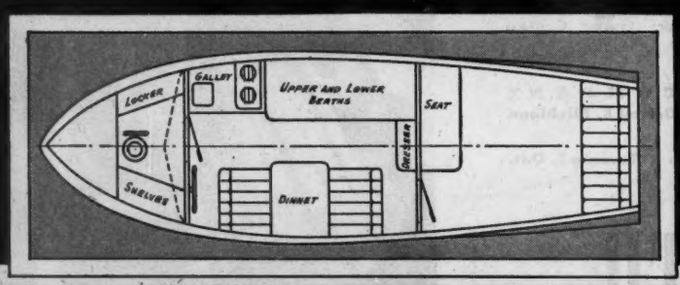
The Truscott 28 is a trim little ship you can easily afford to own. She is safe, fast and seaworthy. Her 28 feet of graceful lines are outstanding in any company. Unusual accommodations for a vessel of her size are provided, as you can see from the plan below.

The large open cockpit has a deeply upholstered sun lounge across the stern. The attractive cabin will accommodate 3 to 4 people, and is insulated against heat and sound. The pilot's position with steering wheel and finger-tip control is on the port side. The Truscott Full-Vision Windshield provides complete visibility in all directions. The pilot's seat has a reversible back and is adjustable for height. When this seat is in its lowest position and the back is reversed, it becomes the forward seat of the dinette.

The dinette seats four people and is handsomely upholstered and trimmed in chrome, and can be converted into a full-length comfortable berth. On the starboard side are full-sized upper and lower berths. The upper berth may be lowered in the daytime to provide a comfortable back rest for the stationary lower berth. The galley is fitted with sink, two-burner stove, icebox, grocery compartment and dish racks. Toilet, clothes locker and linen shelves are forward.

The Truscott 28 will be ready for you when Victory is won. Right now we are 100% in war production, and we suggest you continue to buy War Bonds and save them for the day when you can buy a Truscott.

Write at once for current information, estimated prices and descriptions of other Truscott postwar models.



ARMY E NAVY

BUY WAR BONDS

TRUSCOTT PLEASURE CRAFT SINCE 1885

TRUSCOTT BOAT & DOCK CO.

ST. JOSEPH, MICHIGAN

The Lady with a Punch!

The PT—World's fastest combat vessel is equipped with Federal-Mogul Custom "Equi-poise."

Again LST's enter the headlines—not only as "carriers of everything" an invading army needs but equipped to help bust the beach-head!

LST's are now equipped with rockets—rockets that pack the wallop of a big gun. You'll read more about this "Lady with a Punch" and her heroic crews each time we hit the Jap in his lair.

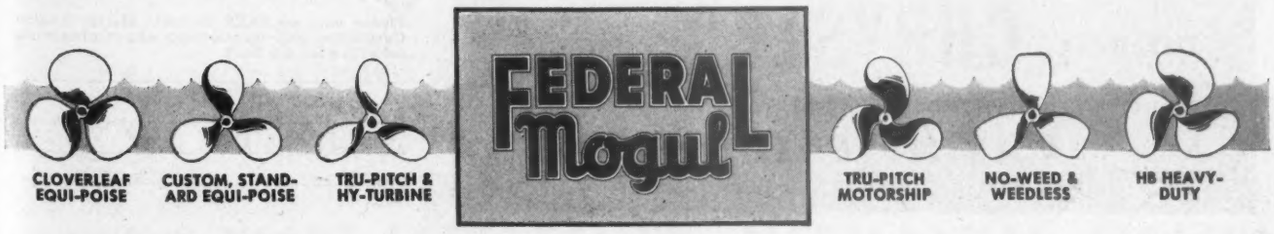
Building dependable propellers for the LST's is but one of our jobs at Federal-Mogul Marine. Today an endless stream of propellers from 4 in. to 12 ft. flow from our four plants to the Allied Navies.

Tomorrow, a hard headed "know how" gained in peace time and aided by new methods of production developed for war—promise the greatest of all marine products. Federal-Mogul Marine, 4043 Beaufait Ave., Detroit 9, Mich.

Detroit, Mich.

Greenville, Mich.

The coveted Army-Navy "E" awarded Federal-Mogul Marine Division for high contribution to American Freedom.



FISHERMEN! . . . YOU CAN GET NEW CHRYSLER MARINE ENGINES RIGHT NOW IF YOU NEED THEM!

PRIORITIES need be no problem for you.

Consult a Chrysler Marine Engine dealer if you want to know how *you* can obtain necessary priorities.

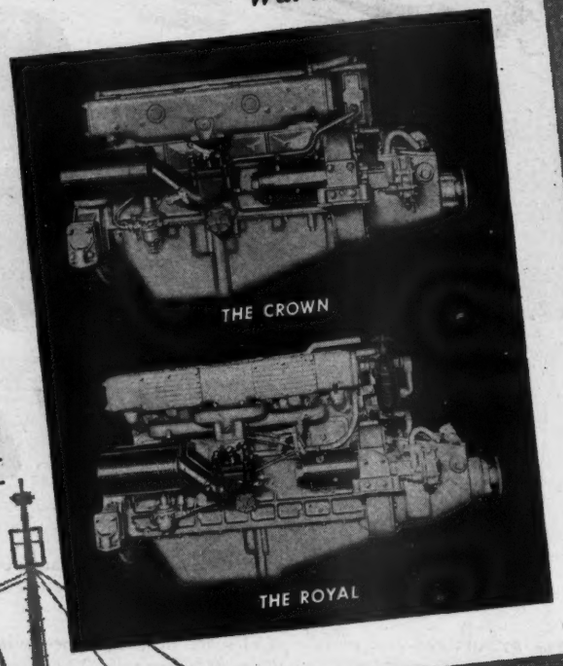
The Army and Navy picked the new Chrysler Marine Engines for tough jobs . . . They'll do *your* toughest jobs— 4 Types—80 to 141 maximum brake horsepower. Completely Chrysler-made in one plant.

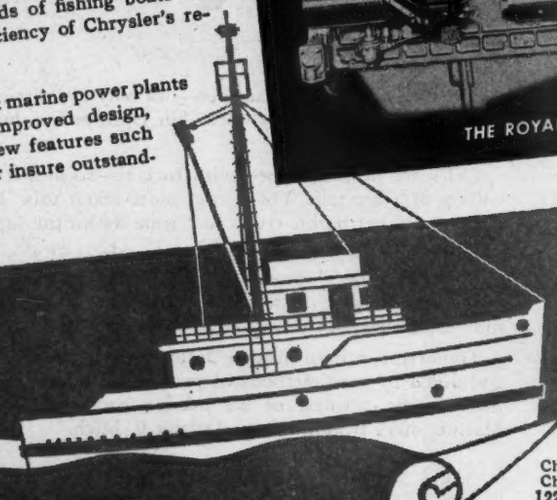
"Superfinish," Chrysler's finishing process for all important moving parts, gives bearing surfaces incredible smoothness. This insures longer life, eliminates the "break-in" period, and produces precision never before possible. After hundreds of hours of use, it's hard to detect any wear on a "Superfinished" part!

Astonishingly versatile—All 4 types of the new Chrysler Marine Engines can be used to operate almost any type of powerboat, through the use of Chrysler-developed reduction gears of unique design. Thousands of fishing boats today are proving the efficiency of Chrysler's reduction gears.

One of the most compact marine power plants ever devised, whose improved design, better materials, and new features such as the full-flow oil filter insure outstanding performance.

THE NEW CHRYSLER MARINE ENGINES
For Fishing Craft and
For Boats in the Essential "War Effort" Class





THE NEW **CHRYSLER**
ACE • CROWN • ROYAL • TWIN ROYAL • DIESEL • ALSO CHRYSLER "SEA MULE"
MARINE ENGINES

Chrysler Marine Engine Division
Chrysler Corporation
12233 East Jefferson, Detroit, Mich.

Please send me FREE Chrysler Marine Engine Catalogue, and information about obtaining priorities for my boat.

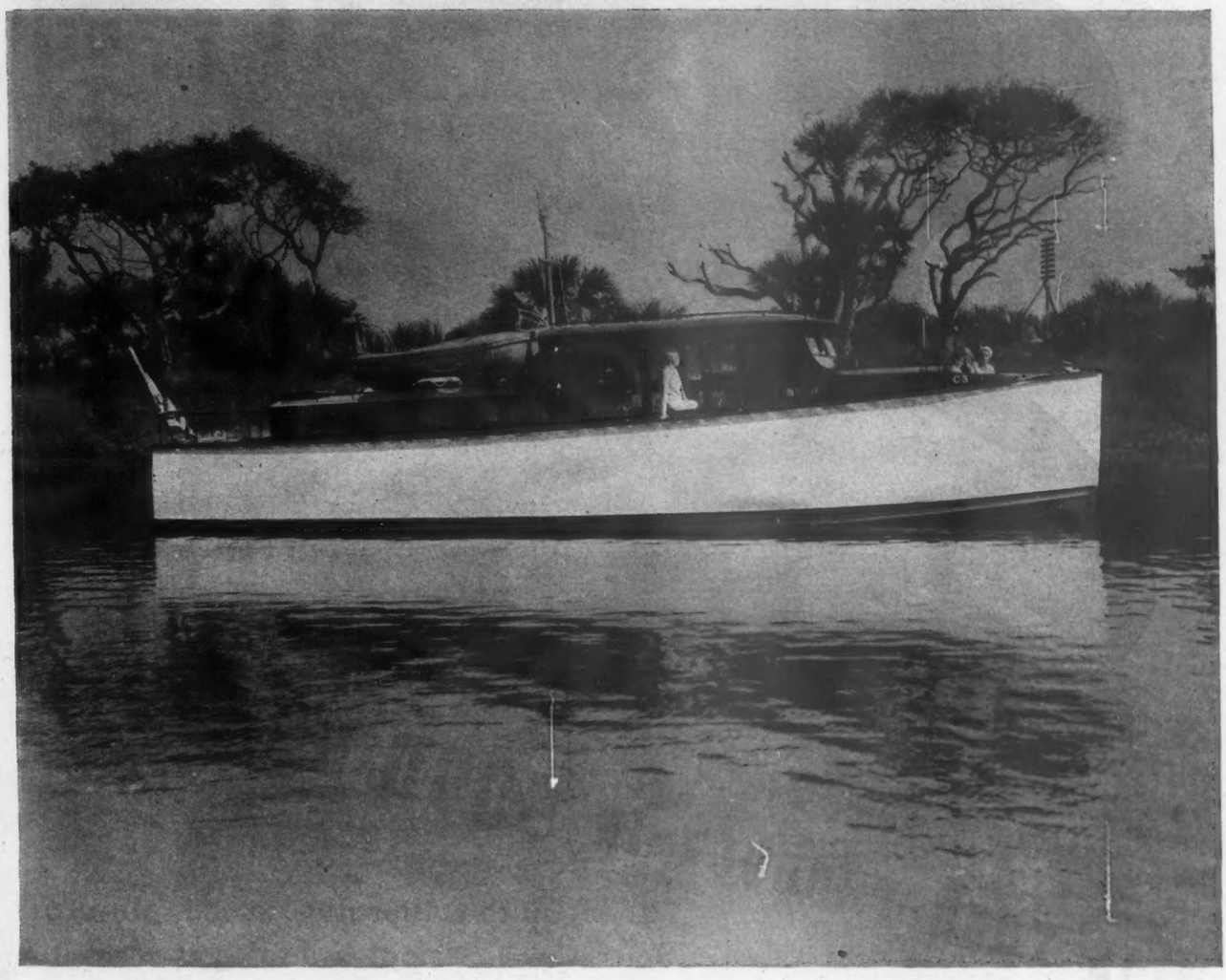
_____
[Type of boat]

Name_____

Address_____

City_____ State_____

1929 FAIRFORM FLYER



No Debutante but still Chaste

A sixteen year old car looks *prehistoric*. Yet this 1929 Offshore 45 still has grace and allure — is still a source of enjoyment.

Hers was the first *non-pounding planing hull* — later the very sine qua non of the successful PT Boat.

She first embodied *laminated construction* — then classed as radical and fragile — now acclaimed by the whole world as the very essence of strength with durability and lightness — without which the PT Boat could not have existed.

Long since has Huckins Research been recognized for its practical idealism.

The *future* Fairform Flyer again inspired by new research, again partaking of technological advancement, will *again* be far ahead.

We invite correspondence from substantial inquirers developing a desire for sound postwar investment in an

Avenue to Health and Happiness

HUCKINS YACHT CORPORATION, JACKSONVILLE, FLORIDA

IS YOUR PRODUCT IN GOOD SHAPE?

We mean that literally . . . is it plain, or does it have complex angles that might be difficult to mold?

The NEW process developed by WINNER for molding low pressure laminated plastics enables us to take the odd shapes as well as the simple ones.

At present we are engaged in the manufacture of plastic parts for war but our Engineering Department welcomes 'after-hour' problems that may challenge their ability. We invite your inquiry.

ALWAYS PICK A WINNER

PLASTICS DIVISION

104 RAILROAD AVE. • WEST TRENTON, N. J.

Winner MFG. CO., INC.

World-Famous for *Advanced Engineering*

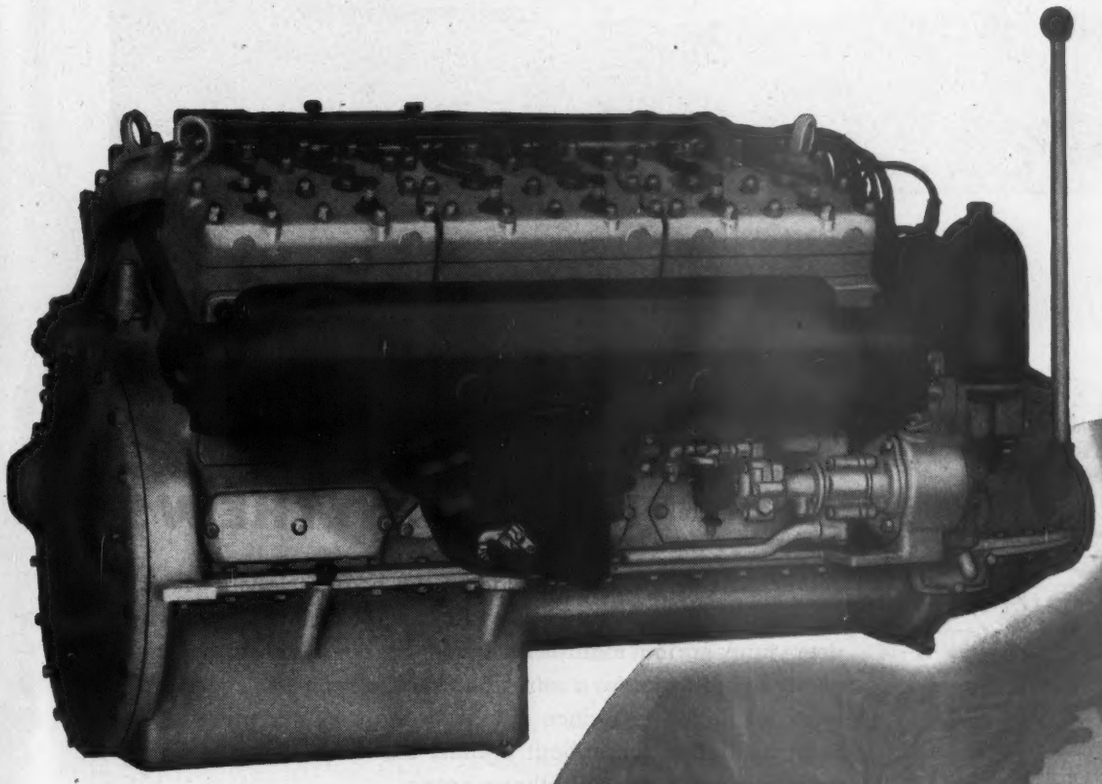
SCRIPPS

GASOLINE AND DIESEL

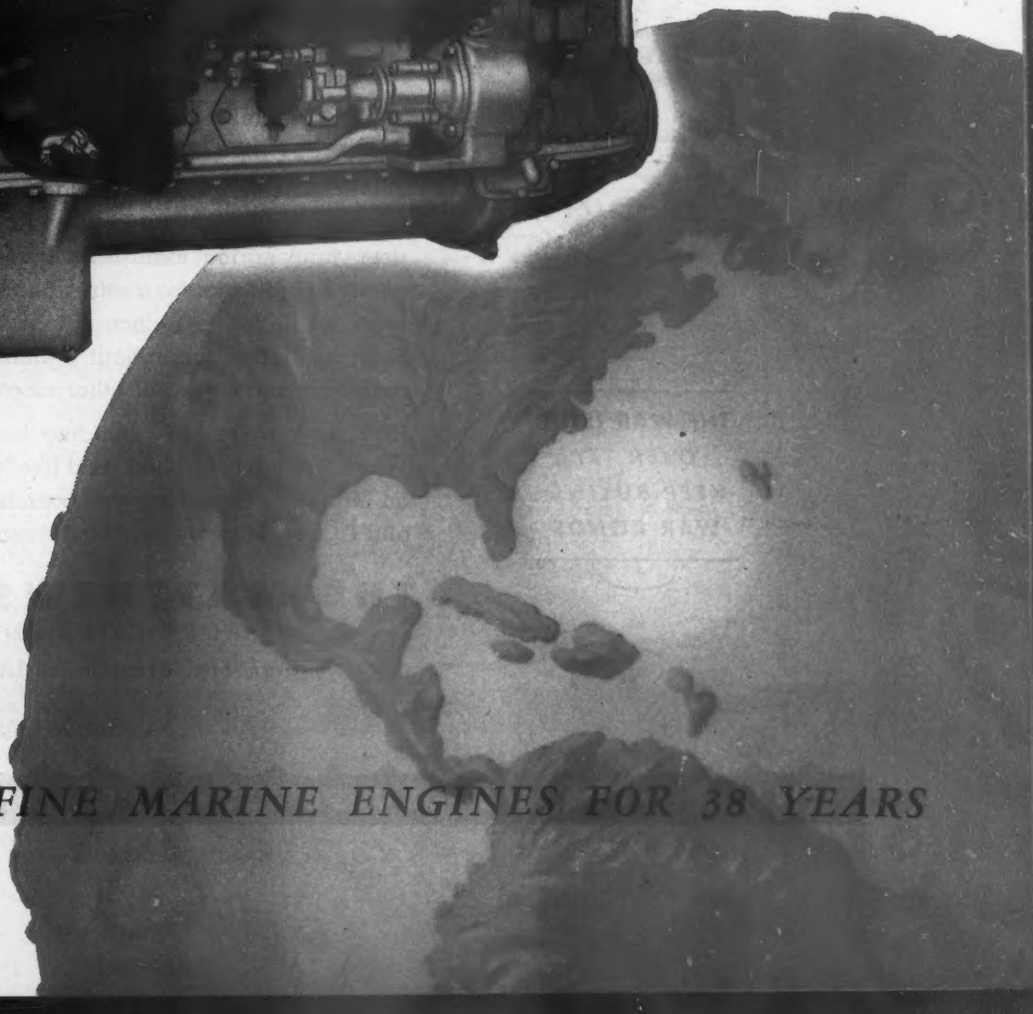
• MARINE ENGINES •

Fours • Sixes • V-Eights • V-Twelves
Twenty-five to Six Hundred Horsepower

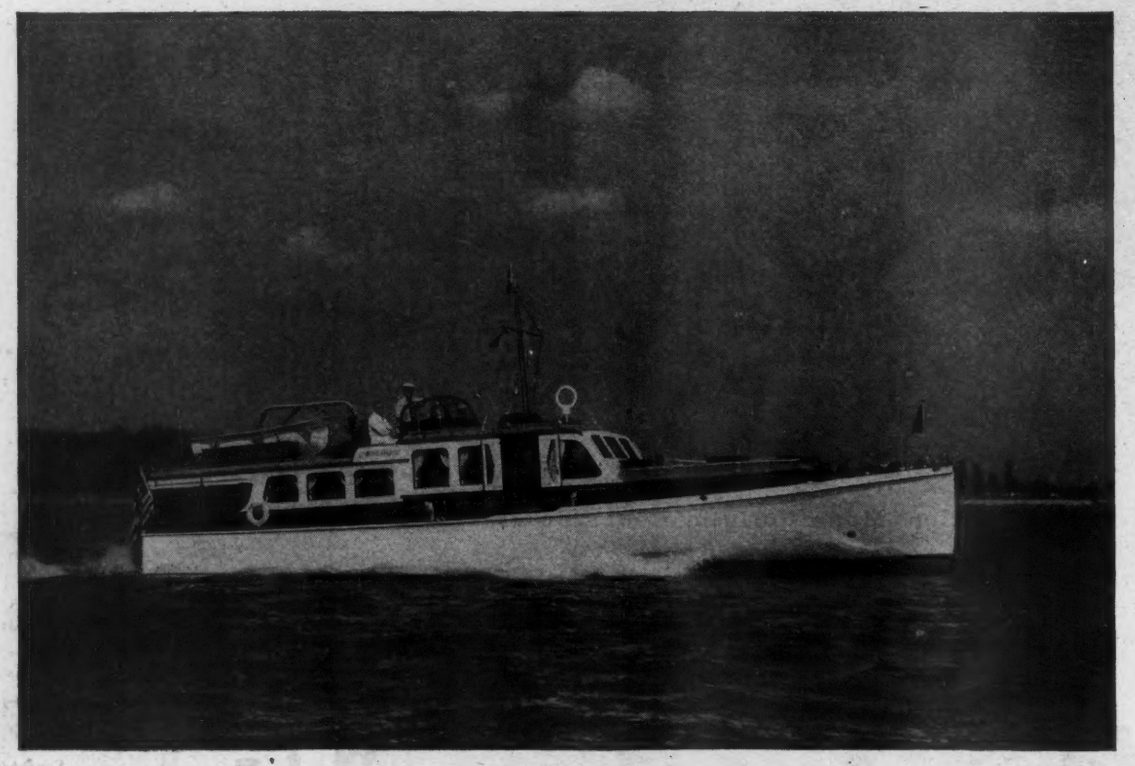
Scripps Motor Company • 5817 Lincoln Avenue • Detroit 8, Michigan



Scripps 300 Series 12 Cylinder 894 cu. in. disp. Vee Type, up to 316 H.P. for fast runabouts and cruisers. True right and left models for twin installations. Present production is for the Allied Nations but literature will be sent on request.



SPECIALISTS IN FINE MARINE ENGINES FOR 38 YEARS



The Matthews "50" Standard Cruiser with Flying Bridge

THE WAR ISN'T OVER YET
KEEP BUYING WAR BONDS

For solid comfort...

PICK A MATTHEWS

You'll find every detail throughout the boat designed with an eye to your utmost comfort, wide generous berths with extra deep inner-spring mattresses made by our own craftsmen—plenty of hot water for a refreshing shower bath—heavy engine room insulation to reduce engine noise to a minimum—overhead insulation throughout against sun heat—deep, soft-pile carpeting and a host of other niceties.

Right now we're busy building landing craft for Uncle Sam. When that job is finished we'd like to send you complete details on Matthews Cruisers if you contemplate a cruiser between 35 and 60 feet. May we add your name to our mailing list today?

THE MATTHEWS COMPANY
PORT CLINTON 2, OHIO
Miami, Fla. Branch . . . 1825 Biscayne Blvd.

"WHEREVER YOU CRUISE . . . YOU'LL FIND A MATTHEWS"

FOUR OF A KIND

Here is a power unit made up of four General Motors Series 71 6-cylinder Diesel engines driving a single shaft. The unit may be operated on one or more of the engines, as required.

It's called the "Quad," and two of them power each of the famous LCI landing boats. Quads save space and weight so more troops, equipment and fuel can be carried.

Half a "Quad"—two 6-71 engines mounted side by side—is a "twin," and these power Army tanks and tank destroyers.

Here is economical power for many postwar uses—power at less than 15 pounds per horsepower—power for applications where space and weight are at a premium.

There's more space for catch or cargo with GM Diesels. They're small and light for their horsepower. They deliver their push with the minimum of inexpensive, safer, easily stowed fuel. And you can count on them to keep unfalteringly on their job.

KEEP AMERICA STRONG
BUY MORE WAR BONDS

GM
GENERAL MOTORS
DIESEL POWER

ENGINES . . 15 to 250 H. P. . . **DETROIT DIESEL ENGINE DIVISION,** Detroit 23, Mich.

ENGINES . . 150 to 2000 H. P. . . CLEVELAND DIESEL ENGINE DIVISION, Cleveland 11, Ohio

LOCOMOTIVES . . . . . ELECTRO-MOTIVE DIVISION, La Grange, Ill.

Remember When?

Remember when you pulled up to the pump and said—"Fill 'er up . . . we're goin' places and have fun!"

Four years ago . . . yet it seems only yesterday. For, if you're like most of us who laid up our boats in '41, you've been dreaming too . . . reliving over and over again the boating pleasures of the good old yesterdays . . . planning new pleasures that lie ahead.

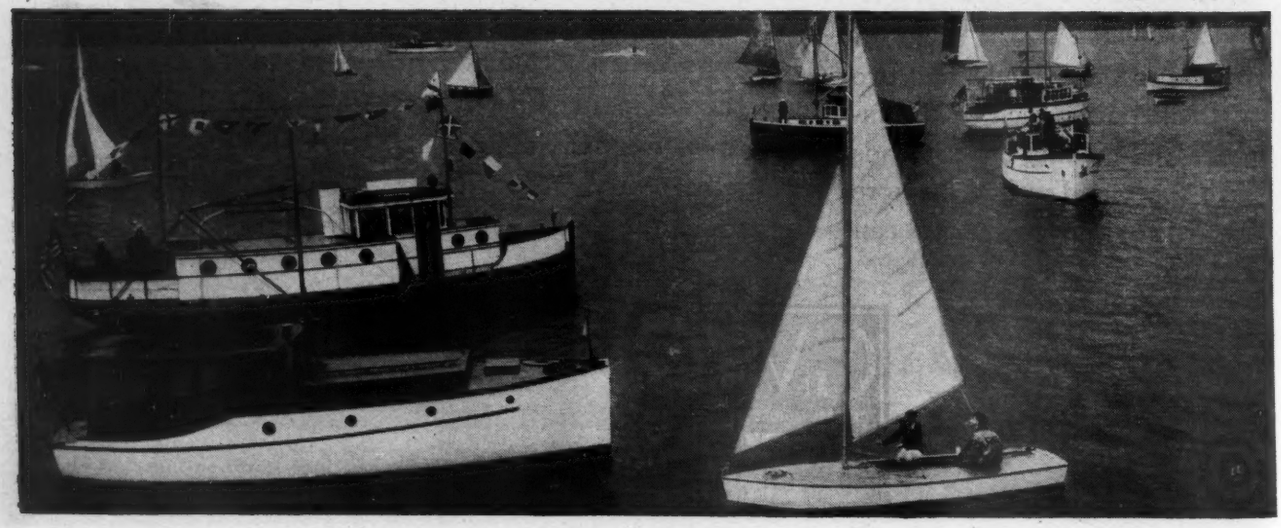
Well, some of these days you'll be fitting out your old boat or maybe getting a new one. And when you do, you'll be interested in new marine engineered equipment we've been developing to make your postwar boat better than ever.

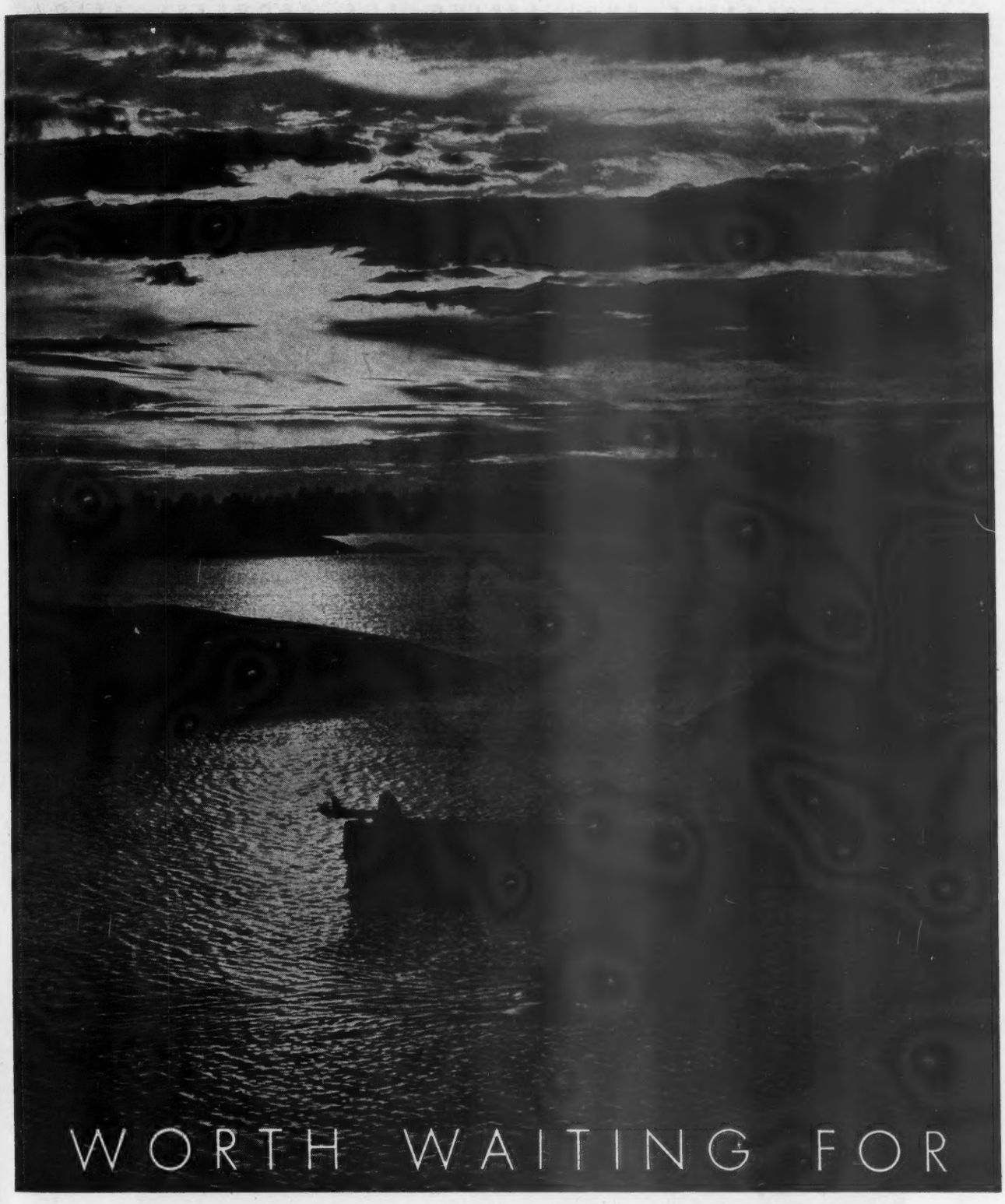
When the time comes, M-P equipment will be available for your pleasure boat at leading marine supply dealers from coast to coast.

MARINE PRODUCTS CO.

6636 CHARLEVOIX AVE. DETROIT 7, MICHIGAN

MARINE ENGINEERED EQUIPMENT





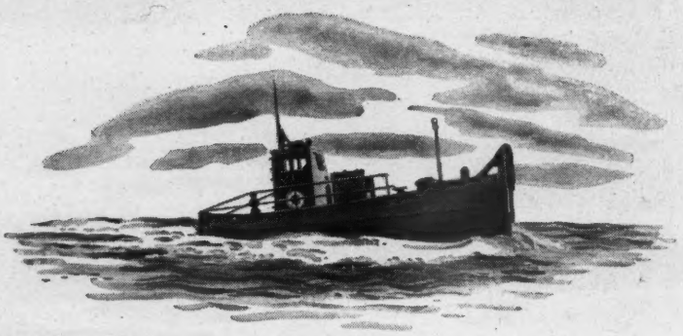
FISHING'S more fun than fighting . . . as twelve million fighting Americans will fervently agree. *Keeping on* producing everything *they* need is all that counts today. That is why the Evinrude you want for happy peacetime use may not be ready as quickly as you, and we, would like. All we can promise is . . . it will be *worth waiting for!* Evinrude Motors, Milwaukee, Wisconsin.

EVINRUDE

OUTBOARD MOTORS

SPEED THE DAY . . . FOR THEM — FOR YOU . . . BUY MORE WAR BONDS

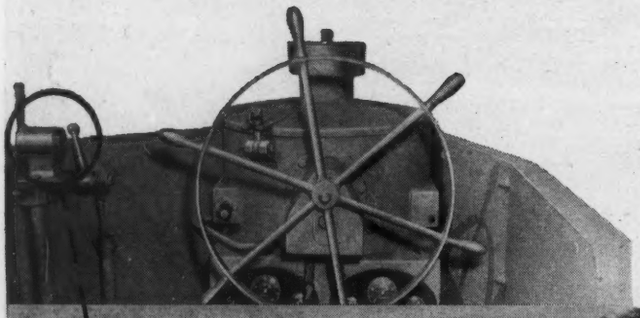
LOOK TO CREATIVE ENGINEERING FOR PROGRESS AFLOAT



Bendix B-K Remote Controls

solve a basic problem

on the mighty Sea Mule



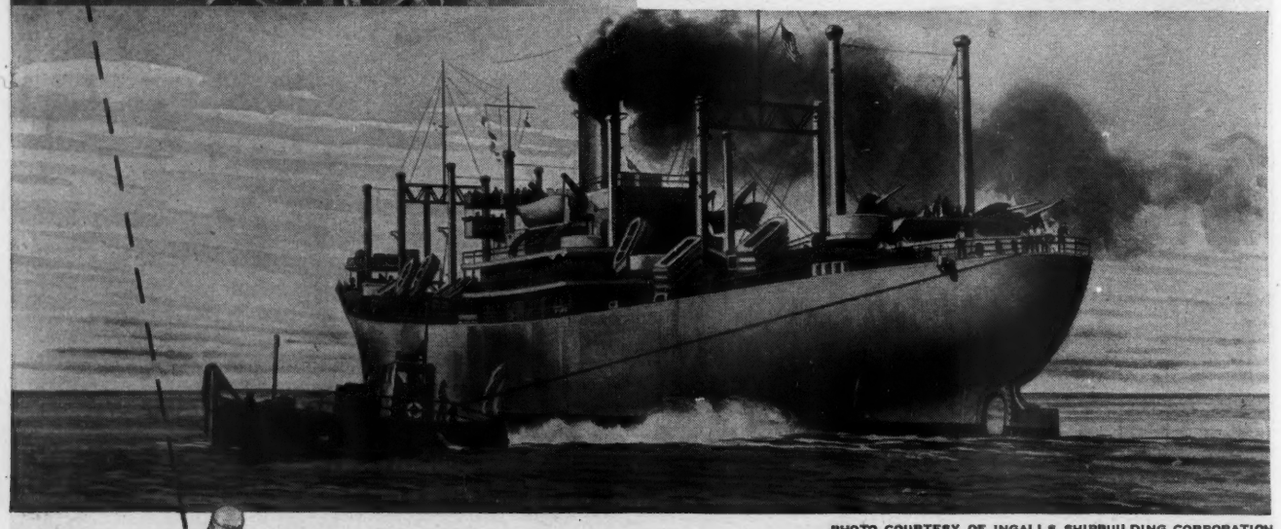


PHOTO COURTESY OF INGALLS SHIPBUILDING CORPORATION

Small enough to be carried aboard ship, yet able to maneuver an 18,000-ton vessel—that's the Sea Mule, *literally a floating power plant.*

The achievement of this super-efficiency naturally presented unique problems in compactness and design. And that's where Bendix B-K Remote Controls helped. Hydraulically actuated and remarkably compact, they eliminate complicated linkages and take up practically no extra space. And they provide designers with almost complete freedom in engine placement.

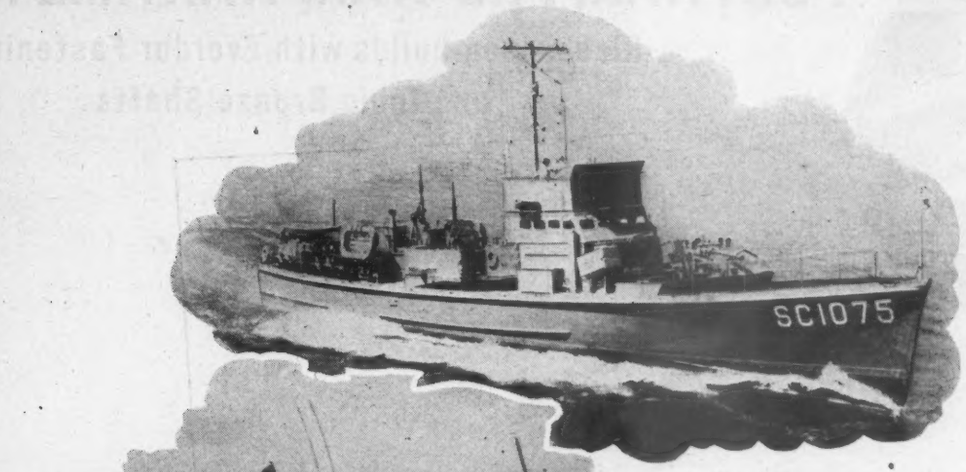
Remember Bendix B-K Remote Controls when designing postwar craft. You'll find this tried-and-proved system the answer to many difficult design problems.

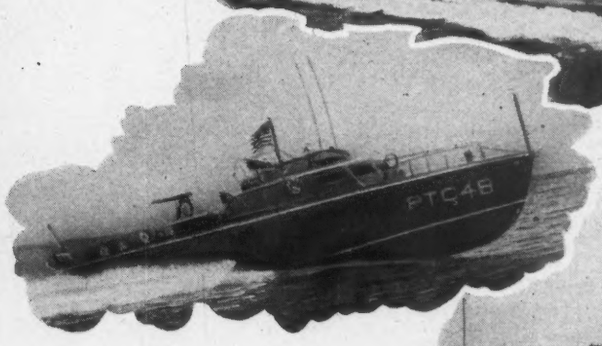
Bendix-Marine INSTRUMENTS CONTROLS

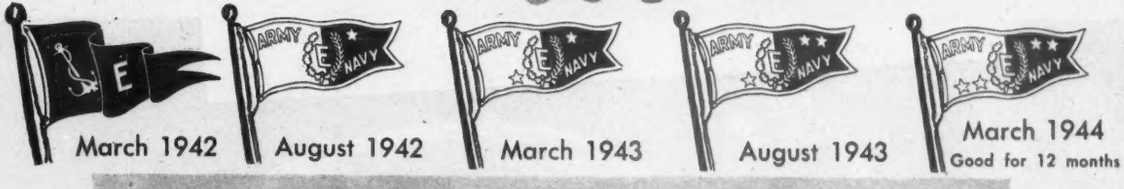
"BENDIX" AND "B-K" ARE TRADE-MARKS OF BENDIX AVIATION CORPORATION

DIVISION OF BENDIX AVIATION CORPORATION

106 Nostrand Avenue Brooklyn 5, N. Y.







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Good for 12 months

The New **TRUMPY** *55-ft. Diesel Cruiser* WITH STACK EXHAUST

JOHN TRUMPY & SONS, INC.

FORMERLY MATHIS YACHT BUILDING CO.

GLOUCESTER CITY, N. J.

109 YEARS BUILDING SHIPS

POSTWAR, PRE-WAR, WARTIME . . .

Richardson builds with Everdur Fastenings and Tobin Bronze Shafts

BUY WAR BONDS
Saved Dollars Mean
Saved Lives

RICHARDSON
BOAT COMPANY INCORPORATED
North Tonawanda, New York

January 8, 1945

American Brass Company,
Waterbury (88), Conn.

Dear Sirs:

The Richardson Boat Company was building pleasure cruisers for almost thirty years before the war. It has been building small wooden boats for the Army, Navy and Coast Guard during the war and it expects to build more pleasure cruisers after the war.

Tobin Bronze Shaftings and Everdur Fastenings are as much a part of Richardson Boats and are as necessary to their quality as the excellent workmanship which has established the Company's reputation.

Today we are, of course, using Everdur Fastenings in the boats we are building for the Navy, and we look forward with keen anticipation to the new designs and new performance of our post-war boats in which we will incorporate the tried and true products of your Company, as in the past.

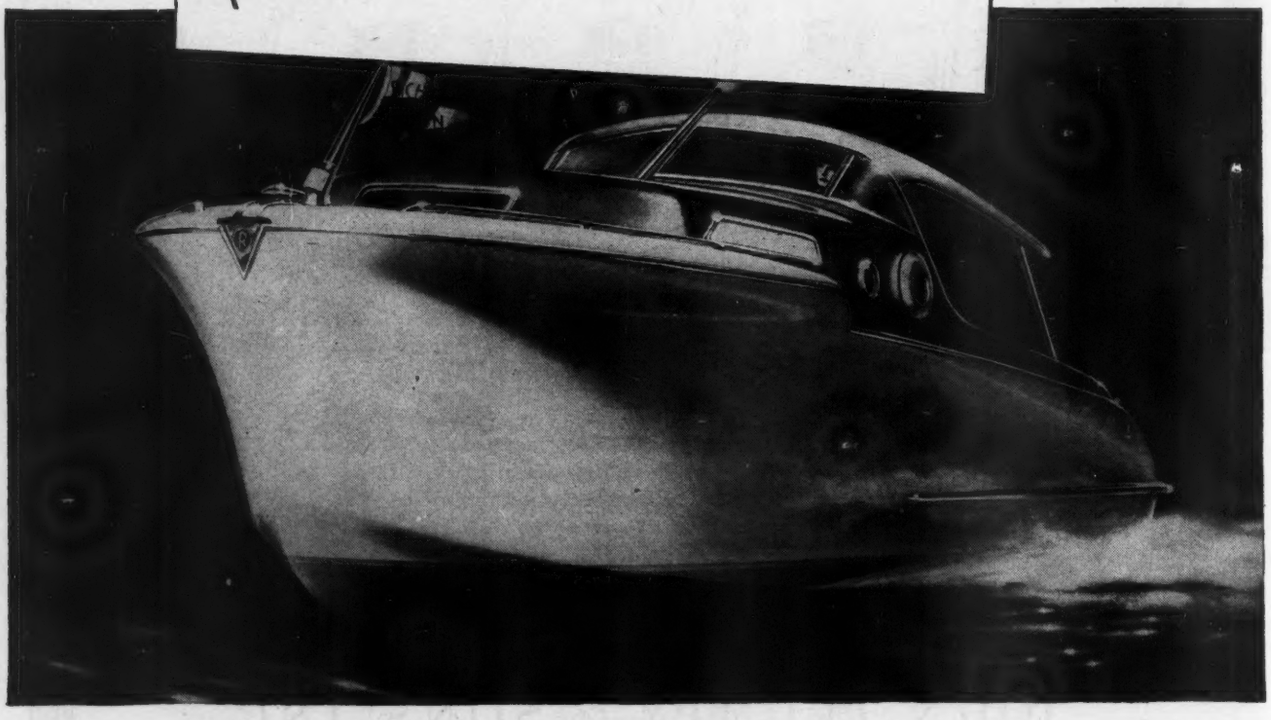
Very truly yours,

RICHARDSON BOAT COMPANY, INC.,

SSWalcott:E

President.

Preview of the Richardson "Cruiser of Tomorrow." Tobin Bronze and Everdur referred to in Mr. Walcott's letter are registered trade-marks of The American Brass Company.



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Subsidiary of Anaconda Copper Mining Company • In Canada: ANACONDA AMERICAN BRASS LTD., *New Toronto, Ont.*

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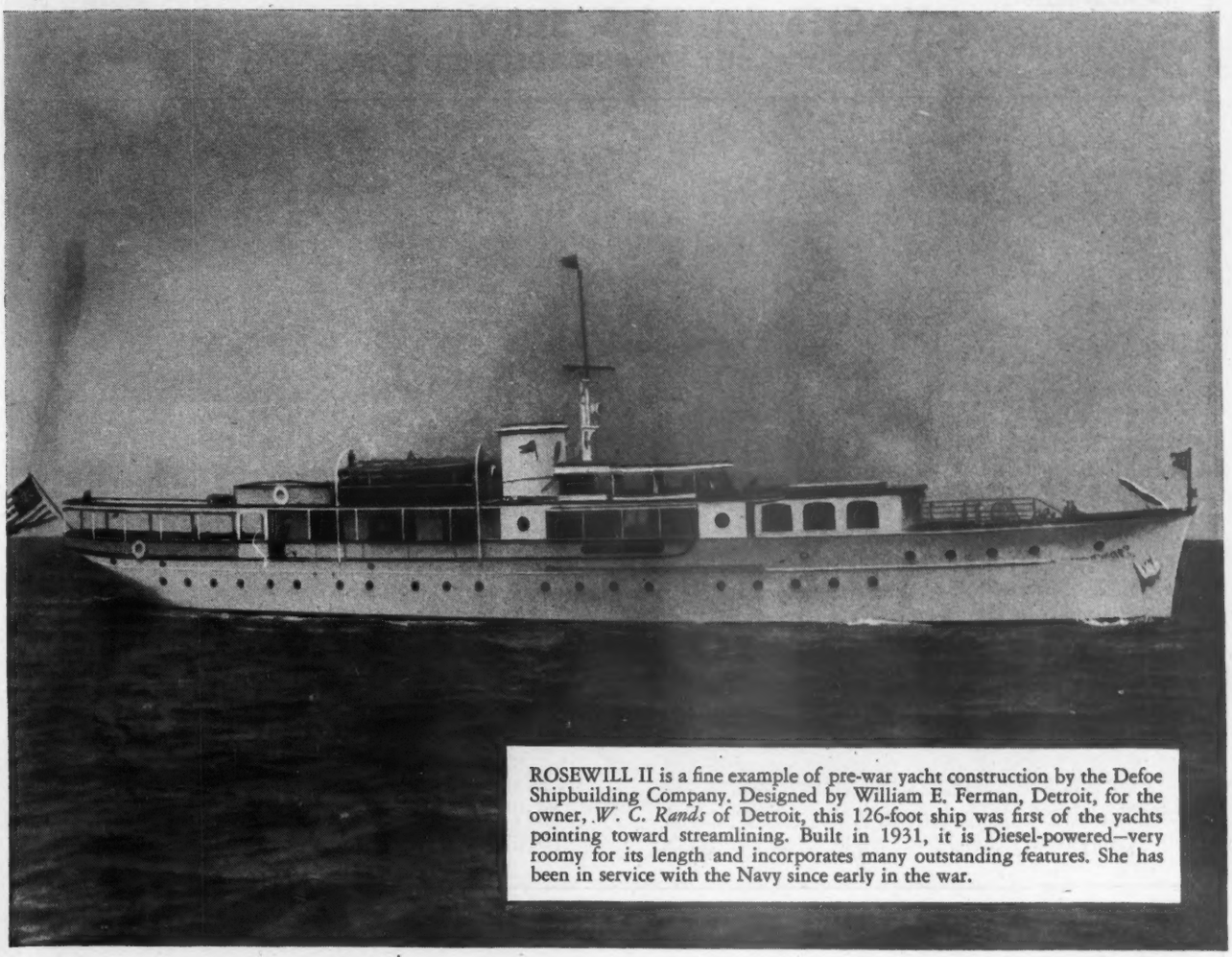

ROSEWILL II is a fine example of pre-war yacht construction by the Defoe Shipbuilding Company. Designed by William E. Ferman, Detroit, for the owner, *W. C. Rands* of Detroit, this 126-foot ship was first of the yachts pointing toward streamlining. Built in 1931, it is Diesel-powered—very roomy for its length and incorporates many outstanding features. She has been in service with the Navy since early in the war.

When It's Clear Sailing Again

In these crucial days every shipbuilder is producing only for Victory. So Defoe's job for the duration is to build fighting ships for the Navy. But some day there'll be clear sailing again for pleasure vessels. Then, it will be anchors aweigh for safer, swifter, more beautiful new yachts, embodying new materials, new power plants, new comforts and economies. One of the most interesting developments for ocean-going yachts will be seen in the advance of instrumentation. This will include the magic of radar, improved radio, electro sounding and gyro-compass control—combining the most perfect ship protection in the history of the sea. Postwar private craft built by Defoe naturally will reflect this organization's forty years of yacht-building experience as well as the new techniques and high standards of precision craftsmanship developed here in record-breaking construction for the Navy. Defoe's Yacht Division invites correspondence and will give individual attention to all inquiries.

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DEFOE SHIPBUILDING COMPANY, BAY CITY, MICHIGAN

Four White Star Renewal Citations now decorate the Navy "E" Award won by Defoe workers.

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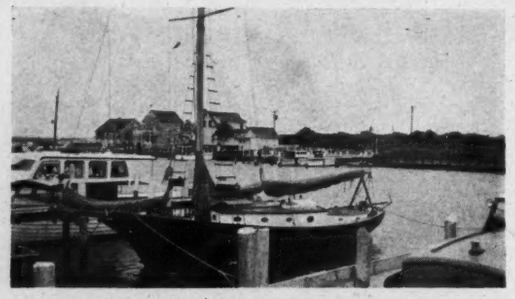
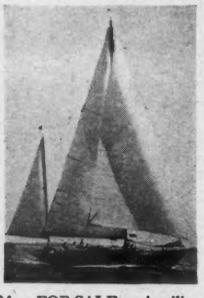
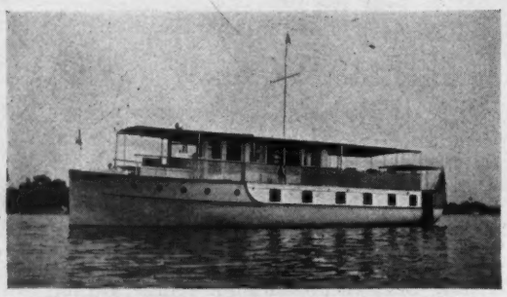
No. 1886 — FOR SALE — 35′ jibheaded auxiliary keel sloop, sleeps four, splendid condition. *For further particulars, communicate with* YACHT SALES & SERVICE, Inc., 1528 Walnut Street, Philadelphia 2, Pa.



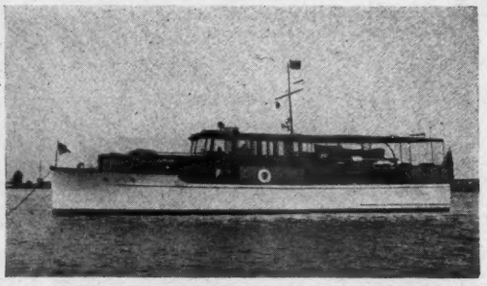
No. 1648 — FOR SALE — Clipper bow auxiliary jibheaded sloop, designed by Crocker. New Gray motor 1937. Sleeps four, excellent condition. *For further particulars, communicate with* YACHT SALES & SERVICE, Inc., 1528 Walnut Street, Philadelphia 2, Pa.



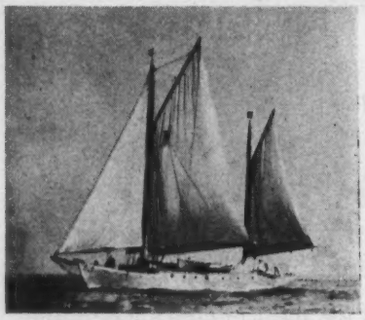
No. 1884 — FOR SALE — Auxiliary yawl, 41′ 8″ x 25′ 5″ x 10′ 6″ x 5′ 5″ designed by Alden. Splendid accommodations and excellent equipment. *For further particulars, communicate with* YACHT SALES & SERVICE, Inc., 1528 Walnut Street, Philadelphia 2, Pa.



No. 735 — FOR SALE — 60′ Mathis houseboat, repowered 1940. Excellent accommodations for six or eight. In commission, completely furnished and ready to go. *For further particulars, communicate with* YACHT SALES & SERVICE, Inc., 1528 Walnut Street, Philadelphia 2, Pa.



No. 2119 — 54′ American Car & Foundry twin-screw cruiser, built 1937. Recently refinished and refurnished. Finest condition. *For further particulars, communicate with* YACHT SALES & SERVICE, Inc., 1528 Walnut Street, Philadelphia 2, Pa.



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Naval Architect
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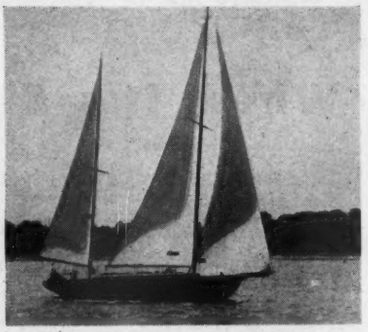
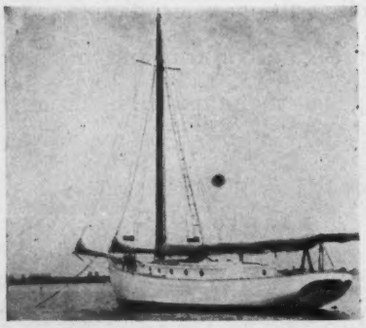
Tel.: CAPitol 9480
• • •
YACHT BROKERAGE AND INSURANCE

No. 3341 — FOR SALE — Well known Diesel ketch now in commission in Florida. 52′ x 44′ x 13′ 7″ x 4′ 2″. Has large cabin sleeping three to four, double stateroom, roomy toilet, ample locker space, engine room aft. Large water and oil tanks of copper. Very able and seaworthy in fine condition. Run by small crew. Price $16,500.00.

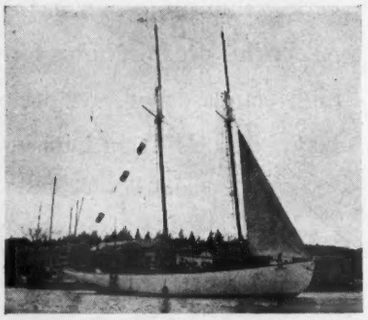


No. 5085 — FOR SALE — Able and fast cruising ketch, 41′ 6″ x 32′ x 11′ 6″ x 5′ 8″. Built by Casey 1929. Large double stateroom, roomy cabin, toilet room, galley aft. Believe hull in good condition. Not used for several years. Requires new engine. Laid up near Boston. Price $5500.00.

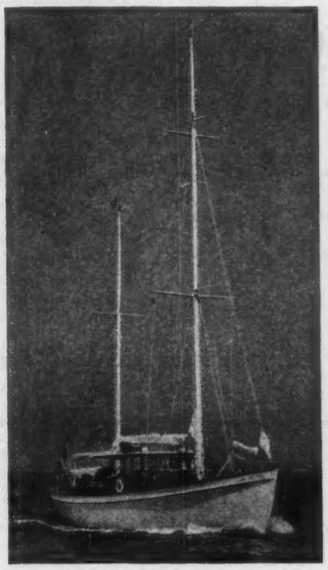


No. 3303 — FOR SALE — Husky cruising cutter, 42′ x 13′ 6″ x 7′ 9″. Double stateroom forward, main cabin sleeps four, galley aft. Able to go anywhere. Gray 50 h.p. 2:1 reduction gear. Very plainly finished, heavily built. Price $5500.00. Laid up in Maine.

No. 691 — FOR SALE — 1940 Alden Malabar Jr., 31′ 4″ x 22′ 1″ x 8′ 6″ x 4′ 8″. Has four-berth layout. Mahogany planking, Everdur fastened, stainless halyards. Has canvas winter cover. At present this boat is being completely painted and made ready for use. Engine is being overhauled. Has tender and standard equipment. Laid up in Connecticut. Price $4950.00.



No. 693 — FOR SALE — Very able flush deck cruising schooner, our design. Built 1939 for trans-Atlantic cruise. 60′ 5″ x 46′ x 15′ 6″ x 7′ 10″. Mahogany planked, Everdur fastened, lead ballast. Has very large main cabin with four built in berths, large double stateroom aft, toilet with shower amidships. Very large galley, roomy forecastle. 40 h.p. Gray motor, 300 gals. of water. Has very high rail. Surprisingly fast under sail. Raking spars, etc. Good buy at $22,000.00.



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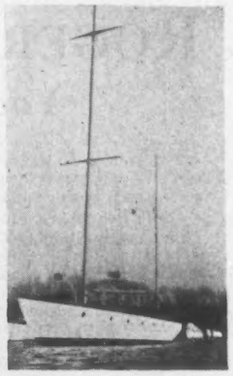

• 54′ Motor yacht, a very able and comfortable yacht. Powered with 80 horsepower Chrysler Reduction Gear motor. A fine offshore, beamy job. On Chesapeake Bay.

• 64′ Alden designed and Jacob's built motor S sailer, twin Diesel motors. Interior walnut finished. A beautiful job, well taken care of and now being refinished.

• 40′ Offshore Diesel schooner, designed and built for ocean cruising—A very fine, heavy boat, unusually well built. Now in dry storage.

Also . . .

• A fine cruising and racing boat. New canvas on decks, cabin, stainless steel rigging; two sets sails, sleeps two, has toilet. Completely overhauled and in commission.

ESSEX BOAT WORKS, INC.

Essex, Connecticut

Brokerage Department

12718 — 27′ x 9′ x 3′ sleeps six. Converted lobster boat. Palmer Engine, all 1936. Never used commercially. Very rugged, seaworthy. Laid up near Essex.

13840 — 38′ x 10′ 5″ x 2′ 6″. Double ended hull, built in England 1924. Very comfortable, fully equipped cruiser. Sleeps six. 1940 Universal motor. Generator, 12′ power tender. A bargain. Can be seen at Bronx.

13944 — 39′ x 11′ 6″ x 3′ 3″. Sleeps six. Heavy boat. Twin Osco motors. Built in 1937, good shape. Offered at reasonable price. Just outside New Haven.

15347 — 53′ Elco, back from Coast Guard. For sale as is. Standard boat — recent twin power. Needs general overhauling but basically a fine boat. Good chance. See her at our yard.

12848 — 28′ fast fishing boat in fine condition. 1931 hull with 1937 Chrysler Crown engine. Exceptional opportunity in this market. Sleeps three; with toilet and galley. Must be seen to be appreciated. At Noroton, Conn.

31958 — 21′ Chine sloop, keel, cabin (for 2–3). No power. Laid up Rhode Island. A good looking boat. Very few of her size available so act quickly. Price very fair. Built 1939.

32355 — Well known Matthews motor sailer sloop. Built 1934. In A-1 shape. Sleeps 3–4. Gray seascout engine 1939. New shaft. Now in shed near Westport. Offered in commission. Good chance for fine boat.

33420 — Auxiliary sloop, 36′ x 34′ x 9′ x 6′. Excellent boat. Everdur fastened. Sleeps 4–6. Gray 40 h.p. engine, one main forward. One of the outstanding boats of her type. Near New York.

52322 — Schooner, 33′ x 23′ 6″ x 6′ 6″ x 5′ 4″. Beautifully built, boat well maintained. Built by Nevins 1930. Has 1940 air-cooled motor. Fast cruiser. Can sleep three. Toilet and galley. Stainless steel rigging, plenty of sails, etc. At Port Washington L. I., by appointment.

NOTICE — Boats come and go so quickly that many of the above might be sold before going to press. Let us have your inquiry and we might know just the boat you want. If you have a boat to sell, please list it with us. We can sell it for you.

We Are Dealers for Richardson Cruisers

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131 State Street, Boston 9, Massachusetts

YACHT BROKERS *Telephone* HUBbard 2910 NAVAL ARCHITECTS

No. 1330 — For Sale — 43′ 4″ o.a. modern type auxiliary yawl, built 1933. New sails, engine, tender and other equipment for 1945. Sleeps five aft, with berth for paid hand forward. Bronze fastened, teak trim. Price $6500.

No. 5379 — For Sale — By second owner, 58′ 6″ overall Ten Meter sloop without power. Would make ideal conversion to cruising boat. Reasonable offers will be considered.

No. 5107 — For Sale — 1938 special twin-screw Matthews 38-footer. Dual controls. Has had moderate Coast Guard use but will be delivered after thorough reconditioning in excellent condition. Many extras.

Also offered are:

Two 34′ Marblehead cruisers, one twin-screw and one single-screw. Both boats in very good condition.

1942 32′ Chris-Craft sedan, single-screw, moderately used.

28′ o.a. Atkin double ended cutter, hull and spars complete with sails and engine. Some interior joiner work unfinished. Never used.

Completely reconditioned 43′ 6″ N.Y.Y.C. 30-footer with new cabin trunk and doghouse, modern yawl rig. New engine 1939. Rig and cabin new 1944. Price $4900.

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- **73′ Ketch,** Alden design, Lawley built 1927. Red Wing motor 1935, two suits sails, stainless rigging; very complete.
- **55′ Ketch Motor Sailer,** Hand design 1928, 6-cylinder, 1941.
- **43′–45′ Schooners,** Alden design.
- **Luders′ 25′ Sloop,** 40′ l.o.a., built 1937, outboard collapses into stern, sleeps three.
- **36′ Cutter,** Burgess design 1937, copper fastened, Gray Sea Scout motor, sleeps two forward, four cabin. Some work necessary.
- **34′ Cutter,** Stadel design 1940, 25 h.p. Universal 1940, sails 1941, stainless rigging, sleeps two forward, stateroom, two cabin.
- **34′ Lake One-Design** by Rhodes 1939, two suits sails, sleeps three, toilet, 4-cylinder Universal.
- **H-23 — 34′ L.o.a. Sloop,** Herreshoff 1939, three suits sails, sleeps two.
- **34′ Ketch Motor Sailer,** Minneford 1938, sleeps five, dinette. 80 h.p. Palmer. Ideal to live aboard.
- **6 Metre,** Nevins built, converted. 8 h.p. Wisconsin 1940, two suits sails plus, sleeps two, toilet. Fully found.
- **31′ Sloop,** Hand design 1924, sleeps two forward, two cabin, 20 h.p. Lathrop.
- **48′ 6″ Chris-Craft Twin-Screw Motor Yacht,** built 1939. 160 h.p. Chris-Crafts RD 2.54–1. Looks like 55-footer. Fully found.
- **48′ Dawn Twin-Screw Cruiser,** sloping windshield, 150 h.p. Lathrops, completely rebuilt 1945, sleeps four forward cabin, two rear cabin, two crew. Exterior completely done over 1944.
- **42′ Luders Speed Cruiser 1928,** bronze fastened, 290 h.p. Sterling.
- **38′ Mathews Cruiser 1929,** Gray 135 h.p. 1938, overhauled 1944. Sleeps two cabin, two deckhouse, dinette.
- **35′ Elco Cruiser 1933,** 115 h.p. Buda, sleeps two forward stateroom, four cabin. Very complete. Always kept in top shape.
- **34′ Elco 1927,** 107 h.p. Gray 1941, RD.
- **26′ Richardson Cruiser,** built 1941, 51 h.p. Gray.

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45′ Hand V-Bottom, Twin-Screw Deckhouse Cruiser. An old boat but in good condition. Priced low.

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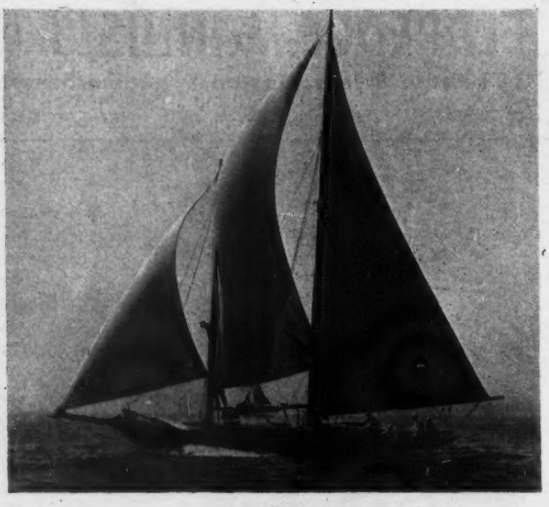
Alden Malabar, Jr., like new. 43′ 6″ Auxiliary schooner. 25′ Post designed and built sport fishing launch. Two Star boats. 20′ Dory equipped with 5 h.p. Bendix motor. Class "X" Dinghy. 31′ Fisherman type party fish boat. 50′ Freight boat, 45 ton capacity, powered with practically new Caterpillar-Diesel motor. All of these boats may be inspected at our yard at Mystic, Conn.



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No. 7682—Auxiliary schooner. Fast, comfortable, a beautiful boat, built of the finest selected materials, and in perfect condition. Dimensions: 46′ 3″ x 33′ x 11′ 3″ x 6′ 6″ draft. Hull is double planked with mahogany and bronze screw fastened. Deck, rails, hatches, cockpit, etc., all selected teak. Lead keel. Pigeon hollow spars, Ratsey sails (two suits), also many light sails. Kermath engine with reduction gear and feathering propellor. Accommodations for six aft, and one paid hand. Two toilets. Very complete inventory for both cruising and racing. This boat is in a class by herself. Price $10,500.

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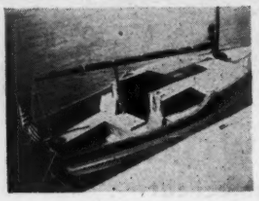

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AUXILIARY SLOOP, built by us 1934, lapped strake mahogany planking, copper fastened, bronze centerboard. 23′ o.a. x 8′ 8″ x 2′ 6″. Two-cyl, Universal with starter and generator. Roller reefing on main. Stainless rigging. Unusually large cabin including two 7′ berths. Toilet, stove, ice box and ample storage. Comfortable cockpit. Boat easily handled by one person and has cruised extensively.

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28′ Chris-Craft Cabin Cruiser, 1940 motor	$ 3,350
32′ Chris-Craft. Sleeps six. 1940 DeLuxe Lathrop	3,650
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60′ Elco, Twin 1937 Chrysler "Majestics" (Florida)	11,950
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46′ x 14′ x 5′ Motor Sailer. '36 Fairbanks Morse Diesel	12,000
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Brokerage Department: Mr. Herman Jagle, Miss Linda Wesik

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40′ Twin-Screw Chris Craft, new 1941. Speed 26 miles.
42′ Sedan Cabin Cruiser. New 1939. Speed 9 knots.
46′ Twin-Screw Cruiser. New 1939. Speed 11–13 miles.
54′ Twin-Screw A.C.F. New 1929. Speed 18–20 miles.
55′ Twin-Screw Diesel Yacht. New 1937. Speed 15 miles.

60′ Mathis Houseboat, in A-1 condition throughout. Very attractive, and suitable for year-round home afloat. Inspectable by appointment at Annapolis, Md.

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31′ 6″ Sloop. New 1943.
31′ "Overnighter" Sloop.
42′ Diesel Cutter. New 1942.
Several 8 Metres and 12 Metres.
37′ Double-ended Ketch, now being completed. Built to best of specifications.
52′ Husky Sea-going Auxiliary Ketch.
81′ Auxiliary Schooner.
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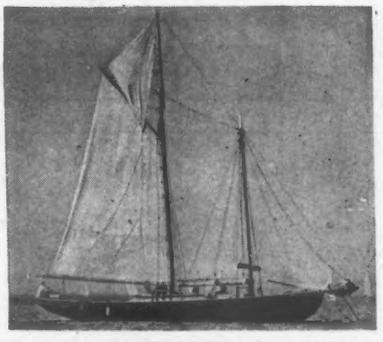

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MARINE INSURANCE

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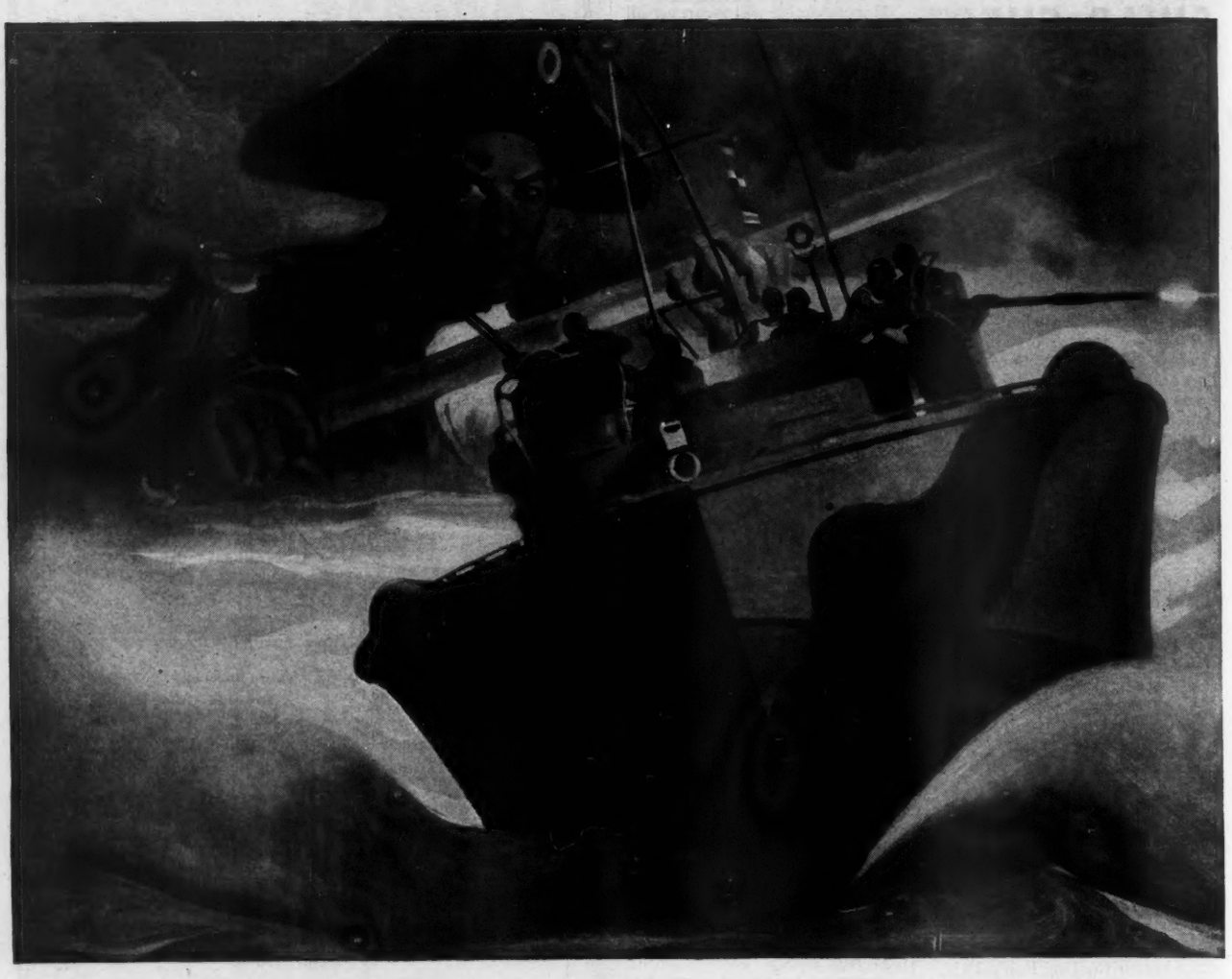

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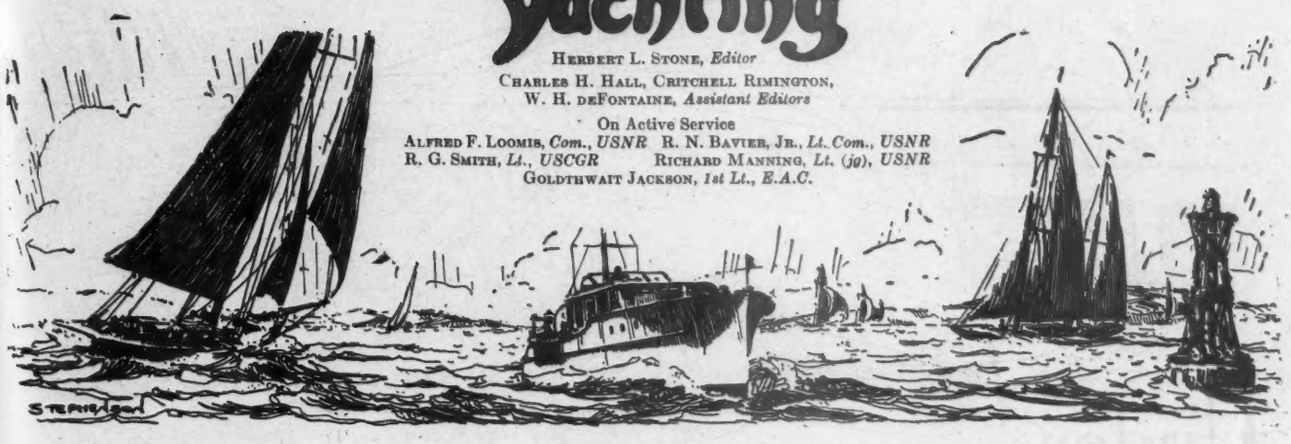

VOL. LXXVII FEBRUARY, 1945 NO. 2

THE PICTURE STILL HOLDS

AFTER making a comprehensive survey in our January issue of the opinions of naval architects and boatbuilders on the postwar outlook for boating, and particularly as to the time when building for civilian use might be reasonably expected, the war picture changed suddenly late in December, upsetting, perhaps, some of the more optimistic forecasts that had been received. However, the opinions analyzed reflected on the whole such a conservative viewpoint as to when priorities might be lifted, that the conclusions reached still hold pretty much as set forth, even though the war in Europe still has to be won, and the end is not yet in sight. While procurement for war purposes will be stepped up in some industries, in others, such as the wooden boatbuilding field, the situation has not altered to any extent since our last report.

Perhaps the outstanding consensus reached on the postwar picture was that standardization is to be the keynote of the future. Many boats from the same model is the almost universal forecast. This holds in the sailing field as well as with power cruisers. As economies of production can be achieved only through building many boats on the same jig and by modernized production methods, the boat buyer of the future is going to take what the builder has to offer, rather than the "dream ship" which his fancy suggests — that is, unless he is prepared to pay without complaint the increased cost that his individualism entails. However, this need not worry one much, as the builders of standardized boats — both sail and power — will be turning out enough models of various sizes and arrangements to suit the most exacting individualist, and one will come pretty close to finding what he wants, even if someone else "thought her up."

TO OUR FOREIGN READERS

IT IS WITH extreme regret that we are compelled to inform the readers of YACHTING outside of the United States, that the magazine will not be available at newsstands or book shops in foreign countries after the February, 1945, issue. Due to wartime restrictions in the use of paper for publications of every character, and the necessity of publishing on a strictly limited quota, it is no longer possible to supply newsdealers with copies for single sales outside the United States. This applies to Canada as well as to all other foreign countries. It is still possible to fill renewal and a limited number of new subscriptions but to make certain of getting even these, one should order at once.

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Under the Lee of the Longboat.

By SPUN YARN

SOME of you may recall mention of the Penguin dinghy the Sea Bees put together for me. She was a nice little boat, built of necessity a little heavier than specification, and more dogged than dashing in her mood. Well, there came a time when she more than fulfilled her destiny. . . . There was a merchant ship ashore. Seas beat against her seaward side and exploded in cascades of flashing spray that leaped high above her masthead. Breakers curled wickedly around her bow and stern and barred passage of Navy launch and Quonset barge alike. To establish communication between ship and shore it became necessary to use my little dink. Her mast was yanked out of her. A dozen men heaved her into a truck and the truck dashed hurriedly along the shore road to the stricken vessel. The dinghy was launched in the sheltered but troubled waters to leeward of the ship. A stern line was made fast to her and three men began to pole her out. The line — two-inch stuff — was too heavy and the grip of the current on it dragged the dinghy toward a reef. Men in oily water to their waists heaved on the stern line and brought the dinghy and her imperiled mariners back. Length upon length of cotton heaving line was substituted for the manila and this time the crew, poling and paddling frantically, forced her against the current, beyond the junction of secondary breakers tumbling in from the two ends of the ship, and reached her side. Then, with lines both to ship and beach, the dinghy made ferry trips until conditions served to set up better means of contact with the stranded vessel. At last, drenched with bunker oil, her plywood sides battered and her gunwales shattered, she was honorably retired. But she's had it and is sailing, like me, only in retrospect.

Old Weston Martyr is a bloke that has had his share of sailing and, although before the war he forsook yachts for archery and during the war, being denied a commission in the Royal Naval Volunteer Reserve, joined the Royal Observer Corps and became an airplane spotter — despite all these things, Wes has remained a sailor at heart. As may be observed from the following quotation from a recent letter. "I served a month on active service with the Navy from D Day onward. I started as a deckhand on a 90-foot M.F.V. and finished up as skipper of her. Never thought I should command a vessel flying the White Ensign. We shot at (or at least in the general direction of) a 'doodle bug' and the thing blew up in the air. I regret to say that the Admiral merely laughed at our claim to have killed the thing, as the rest of the Navy also had a crack at it. Jealous beggars! I had a good time until the R.O. Corps reclaimed me. They would allow me only one month's leave. What sights I saw. I expected to see hundreds of ships, but, by God, I saw *thousands*. Then old Uffa Fox and the RAF shanghaied me and we did some test drops with airborne lifeboats. They would set old Uffa and self adrift in our little rubber dinghy and drop the lifeboats on us under parachutes and we would get aboard and sail the things home. Cheapest form of yachting I ever did in my life. And the boats had a medical comforts locker, with rum in it. The rum would be quickly transferred to Uffa and me. Wish you had been in on this game. These boats sail well and one can easily recognize the International dinghy lines in 'em. . . ."

The lifeboats are the ones described in brief in this department some months ago. I'd give a lot to sail one of them with Wes and Uffa, but I don't see why Wes thought of rum and me in the same breath, as it were. And me a teetotaler!

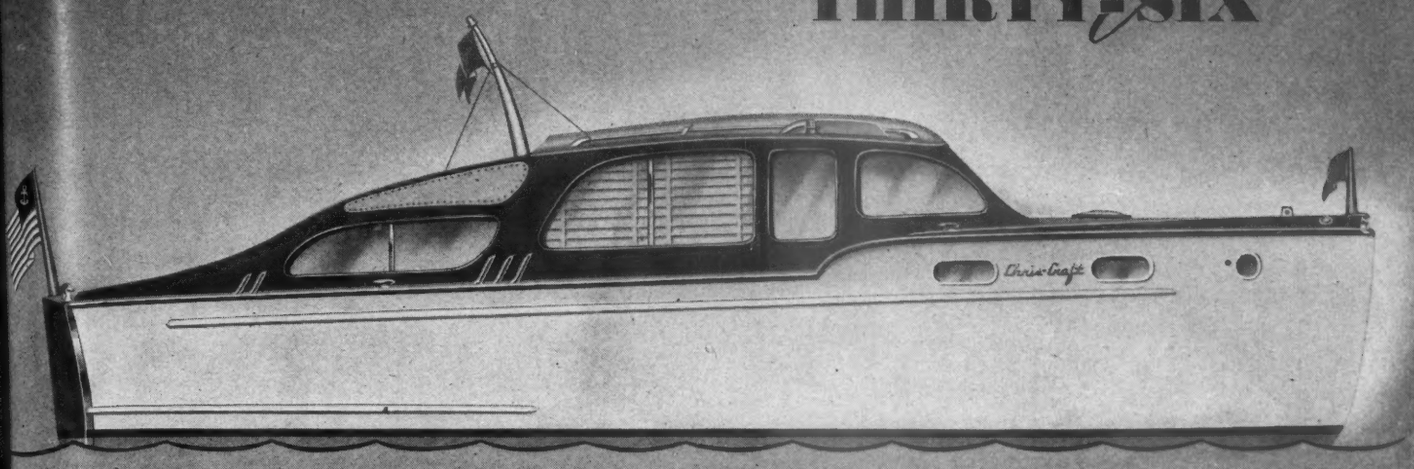
One meets all kinds of people. I picked up an Army contract flyer the other day and gave him a ride in my jeep. He told me that he had just been visiting aboard a ship. I asked him if he found her interesting and he replied affirmatively. He added: "You know, I've made 72 trips across the Atlantic and today was the first time I had ever set foot aboard a ship." In generations to come, men will probably spend their working lives flying over the top of the world from one continent to another and never even see the sea.

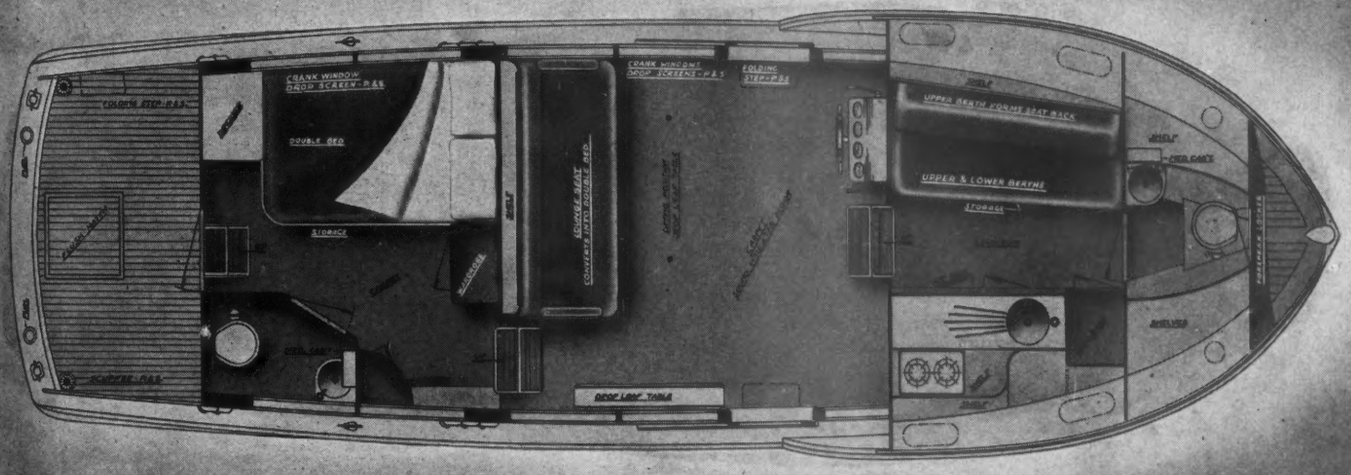
I am about to make the quickest retraction and apology in the history of journalism. Only last month I inveighed against the jeep, implying that I'd prefer any other form of rock crusher or bonebreaker. I take it all back. I drove a pleasure car the other day for the first time in weeks and found it smooth but awkward. Hung it up on a hummock that I'd have passed merrily over in a jeep. Almost forgot and drove it on to sand — which would have been my undoing. Found it difficult to negotiate tight corners. Had to open all the windows to avoid personal overheating. (Slang for sweating.) Went back to my squeaky, bumpy, windswept but amazingly agile and maneuverable jeep with a sigh of contentment.

I'm sure I don't know what it has to do with yachting but I'd like to repeat a kernel of wisdom that I gleamed from an enlisted man whom I drove back to camp the other night. An object

(Continued on page 92)

Chris-Craft
THIRTY-SIX





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YACHTING

Volume LXXVII FEBRUARY + 1945 Number 2

Union of South Africa Office of Information

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SAILING IN SOUTH AFRICA

Despite Its Numerous Drawbacks, Cape Sailing Has Many Compensating Features

By ROLAND T. WENTZEL

YES, there definitely is something to it when they say, "Once a sailor, always a sailor." I seem to be no exception to the rule. In the years gone by I've sailed everything from a Wee Scot to a 65-foot cutter on Long Island Sound and, in 1933, fulfilled a life's ambition by sailing around the world in the 92-foot schooner *Yankee* skippered by Irving Johnson. Shortly after this 18 months' circumnavigation, things quieted down for me as a result of my having accepted a job in Johannesburg, South Africa. Of all places for a sailor to go to, Johannesburg had probably less to offer than any other city of its size. Six thousand feet above sea level, there are no lakes to speak of and even the rivers are mostly dry. An old Transvaal story says that if you fall into a river, all you have to do is to brush the dust off and find a place to climb up the bank.

The Transvaal has one yacht club on Germiston Lake, which is a very small stretch of water about ten miles from Johannesburg. Scows and dinghies did not attract me particularly and, since cruising is my real interest, small boat racing has little appeal to me. Shortly after my arrival in Johannesburg, the tremendous Vaalbank Dam project was finished and a huge area was flooded with the waters of the Vaal and Wilge Rivers. They say it's the largest artificial lake in the Southern Hemisphere, being roughly 90 miles long by about 12 miles across in certain places. This stretch of water seemed to have great possibilities for sailing and I decided to do something about it, in spite of the 60-mile drive from the city. First of all, I looked for a friend to share in the enterprise. I found him in Bob Acly, stationed in South Africa as an American Consul, and through all the intervening years I could not hope for a better shipmate.

To purchase a suitable boat was of course out of the question and, following a thorough inspection of "the Dam," we felt that we needed something pretty substantial and of centerboard construction. Sailing on uncharted flooded countryside has

"Moby Dick II" at her mooring in False Bay's harbor of Kalk Bay. Thirty feet over all, she is of old-fashioned construction and has a deep forefoot and a straight keel

Close quarters! Four International One-Designs fight it out during a race on Long Island Sound. Rosenfeld photo

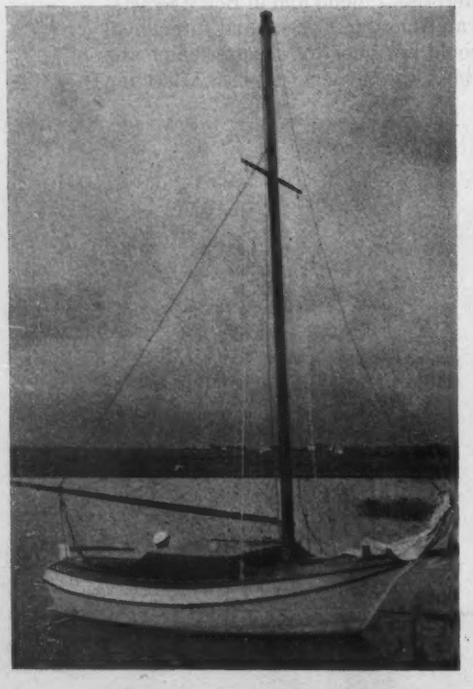
Burton Holmes from Ewing Galloway

Capetown as seen from the summit of Table Mountain. It is the home of the Royal Cape Yacht Club, which has some 300 members and a fleet of 70 craft, ranging from 80-tonners to 14-foot sailing dinghies. From a prewar photograph

its drawbacks and, during three and a half years of subsequent sailing on the Vaalbank Dam, our centerboard scraped across rocks, submerged rooftops, barbed wire fences, gravestones, willow trees and lots of plain mud. But I'm ahead of myself. Bob and I decided to build our own boat, but to do such a thing in Johannesburg was practically unheard of. But this apparently crazy scheme provided months of fun and hard work, months of being busy every Saturday and Sunday and over 30 week-ends during which time our wives were "boat widows."

We built a Dutch dory type of boat of the following dimensions: length over all, 19 feet; water line length, 13 feet 4 inches; beam, 7 feet 2 inches; draft, 1 foot 4 inches; displacement, 2,250 pounds.

Concerning the actual building, I seem to remember what turned out to be the toughest job, and that was the necessity of cutting out the centerboard opening in the keel. The specifications called for oak, but there wasn't a large enough piece to be had anywhere. We were forced to use South African spotted gum; and of all the hard wood I have ever tackled in my day, spotted gum certainly takes the cake. It is the toughest and most obstinate wood I have ever had the misfortune to come across. Our saws were dull after two inches of laborious cutting, our hatchet just folded up, and our chisels looked more like rock drills than anything else.



The author's first boat, "Moby Dick," on Vaalbank Dam, the largest artificial lake in the Southern Hemisphere. She is a Dutch dory type, with an over all length of 19 feet

The rest of the building was pretty clear sailing. Only the chine and the frame clamps caused a few headaches because they required boiling in an improvised steaming plant which consisted of a 20-foot ditch for the coal fire, and an 18-foot, 8" diameter iron pipe. Some fun! The planking and decking were without a hitch, followed by the cabin and canvassing the cabin top and decks. By that time, the boat was beginning to look like something and our much maligned effort was becoming a reality. It took us another couple of months of week-ends to finish the bowsprit, centerboard, seats and rudder, and to caulk the seams. Only one major piece of work remained — the mast. It was impossible to buy anything that even faintly resembled a 24-foot mast, so we decided to construct one. We used four strips of Oregon pine with oak fillers, and riveted them together with 144 copper nails and washers. The sail slide was attached and a specially forged iron band (galvanized before use) was clamped around the four sides at the point where the boom swings off.

Our sails, a jib and a marconi mainsail with a total of 185 sq. ft., were made by a Johannesburg awning and tent maker. He followed our instructions and detailed scale plan very well and, after six years, these same two sails are still being used by the present owner.

We decided to call our boat *Moby Dick* and she was launched at the Vaalbank Dam on January 26th, 1939. It was a thrilling moment and also one of great pride, when, after sliding into the water, she floated pertly and attractively level with the water line the way we had hoped. The Johannesburg newspaper, *The Star*, gave us a fine write-up and a little later published the whole story of her building. The *Moby Dick* was registered at Pretoria and we had the distinction of being given the number "1," the first officially recognized boat on the Vaalbank Dam.

Bob and I sailed her for three and a half years and spent many a week-end aboard. The cabin was extremely comfortable for two persons and it was good to get away from the hustle and bustle of Johannesburg. The winds on "the Dam" were treacherous and violent and we often had our hands full keeping our small craft right side up, but the *Moby Dick* was sturdy and able to take even the most troublesome spinning dust-devils as they came across the water. Our favorite anchorage was in a small cove on an island about three miles from the mainland where we had an abundance of dry wood for our fire, clean sandy beaches, and trees for protection from the African sun. The summer heat in those parts is well over 100 degrees.

In 1943, Bob was transferred to Cape Town and I followed along later in the same year, so we sold *Moby Dick*. I hadn't even decided what train to take when Bob wired to say that he

(Continued on page 84)

THE MARCH OF SIMPLICITY

Trends in the Teaching and Practice of Surface Navigation

By GEORGE W. MIXTER

WITH the gradual change from the old to the new the work of the celestial navigator has been materially simplified, a trend accentuated in recent decades by the necessities of aviation. The most important elements of this simplification of the art may be divided into two interrelated groups, the one based on a number of new methods or tables, the other centered around the development of the almanacs available to navigators. In both of these fields the latest advances are the accepted practice of air navigators.

The purpose of this article is to promote the discussion of what is already at hand to simplify further the teaching and practice of surface navigation. Such simplicity as may be attained should not be regarded merely as an easy out for the student or for the young navigator. It is important to both teachers and navigators because it promotes accuracy, reduces blunders and saves time. At sea, computing and plotting a line of position should be incidental to the consideration of the general situation wherein questions of judgment are the real test of a navigator's ability. In the matter of teaching, it is even more important to eliminate nonessentials and devote a maximum of time to practical work.

All navigators trained in recent years are familiar with one or more of the newer tables for altitude and azimuth, and most older navigators are equally familiar with the cosine-haversine formula for computing the altitude. Although all of these methods plot the line of position by the altitude difference principle of Marcq Saint-Hilaire (1875), they fall into two general classes according to the nature of the trial position from which the computed altitude and azimuth are determined. For the newer and shorter methods, the trial point must be an especially assumed position (A.P.) as later defined. With the older methods, the custom is to use a dead reckoning position (D.R.). The following review of well-known facts indicates that this use of the D.R. is a matter of habit rather than of principle, and suggests that the initial teaching of this habit be discontinued in the interest of simplicity.

The time sight of the old navigation wherein the assumed latitude is that of the D.R. was the standard method for longitude of the last century and continues in wide use in the Merchant Marine. Latitude was determined by meridian altitudes of the sun or other bodies. Star fixes were sometimes used but the noon position was no more than a running fix. During this period, however, the principles of modern navigation began to take form. First came Captain Sumner's discovery (1837) that a single observation gave a line of position somewhere on which the ship must be. Sumner himself understood the possibilities of the use of lines of position but the then methods for determining the line were somewhat laborious and, for this and other reasons, slow progress was made toward what are today the accepted methods of the new navigation. The next important step was Marcq Saint-Hilaire's conception of the principle of altitude differences (1875) which gives a line of position practically identical with the Sumner line but with less paper work. The method requires the assumption and correction of a trial position not far from that of the ship. Time sight navigators had of necessity used as an assumed latitude, that of the D.R. Thus, as a matter of habit, solutions for line of position by Saint-Hilaire's formulae were worked from the D.R. although any

The author is indebted to Mr. Ramon O. Williams for his assistance and criticism when preparing this article.

Teaching the use of a sextant on board one of the vessels of the Coast Guard's Offshore Patrol

position may be assumed within a reasonable distance of the ship. With few exceptions, this habit of working from the D.R. continues to prevail whenever the cosine-haversine method of Saint-Hilaire is used.

Although preceded by several shorter methods which required the use of especially assumed positions, a great impetus was given to the custom of working from the D.R. by the publication in 1932 of Ageton's cosecant-secant tables known as *H.O. 211*. With these tables, the solution is simpler than with the cosine-haversine method and gives both the altitude and azimuth from a single computation. *H.O. 211* immediately became popular and today it is probably the most widely taught of any of the methods for line of position. The title, *Dead Reckoning Altitude and Azimuth Tables*, is misleading because, like the cosine-haversine method, the tables are equally suited for working from any assumed position.

The shorter methods require the assumption of a trial position of a whole degree of latitude and of a longitude which gives a whole degree of hour angle. The abbreviation A.P. will be used to indicate such a position and, evidently, the azimuth and intercept must be plotted from the same A.P. from which they were computed. Of a number of pocket tables for computing the altitude and azimuth from an A.P. defined as above, *H.O. 208* and those of the Ageton (1942) method are outstanding. However, the most important advance among the newer tables is found in the multi-volumed *H.O. No. 214 Tables of Computed Altitudes and Azimuths* which gives the required figures with a minimum of arithmetic. In fact, *H.O. 214* or similar tables, used with whole degrees of latitude and hour angle, offer by far the simplest and shortest method for line of position yet available. Thus the inevitable trend is for every navigator to use *H.O. 214* or some like method whenever the necessary tables are at hand; i.e., to work from an A.P. as defined. Without *H.O. 214*, as in small craft and in many merchant vessels, the navigator must compute the altitude (Hc) and the azimuth (Z); but here again the shorter methods require the use of an assumed position (A.P.) which gives a whole degree of latitude (L) and hour angle (t). Or Hc and Z may be computed from any A.P. by *H.O. 211* with no more work than from the D.R. Therefore the question, why first teach a student the old D.R. habit?

The reasons assigned for teaching the use of the D.R. as a trial position are both practical and academic. If a novice works a sight taken from an exactly known position, it may be assumed that a short intercept is correct and that a long intercept indicates a mistake, all without plotting. On the other hand, a short

intercept from the D.R. leads the inexperienced to think that the D.R. itself is correct, a dangerous assumption because a fix may place the ship many miles from the D.R. Or the thought is advanced by those who have the habit that it is simpler to plot from the D.R. than from an A.P. This question is debatable, but certainly it is simpler to teach a student to work from A.P. positions when plotting a round of stars observed from a fast-moving ship. The academic reason for first teaching the use of the D.R. is apparently because it approximates the position of the ship which the student has been taught to consider as one corner of the astronomical triangle. There is no reason to think that teaching only the use of the A.P. is an omission of basic principles and the trend is toward the use of a trial position of the A.P. type. In fact, this is the general method in both the teaching and practice of air navigation, and the use of the D.R. is seemingly a reflex from the past.

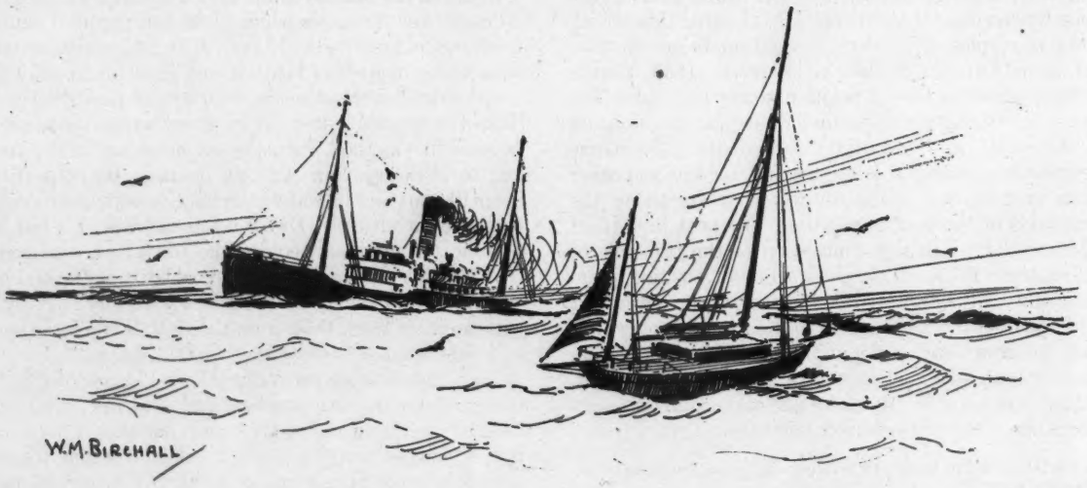
Where navigation is an element of a correlated curriculum including mathematics, the teaching of solutions of the triangle begins with the derivation of the formulae. Until recently, the all but universal custom was to teach the cosine-haversine method first. With this formula developed, study problems were worked with 150 pages of Bowditch logarithms, a burdensome process to one accustomed to work with the 33-page tables in the pamphlet *Appendix to Raper's Practice of Navigation* (1913), as arranged by William Hall, R.N., F.R.A.S., Chaplain and Chief Naval Instructor of the Royal Australian Navy. The present tendency, however, is to set aside the reversion to Marcq Saint-Hilaire and to go forward at once with the development of the methods of *H.O. 211*. Having been taught that its A and B functions are in truth logarithms of the cosecant and of the secant $\times 10^5$, the student then computes and plots sights from the D.R. with little thought of logs or trigonometry. Then follows *H.O. 214*.

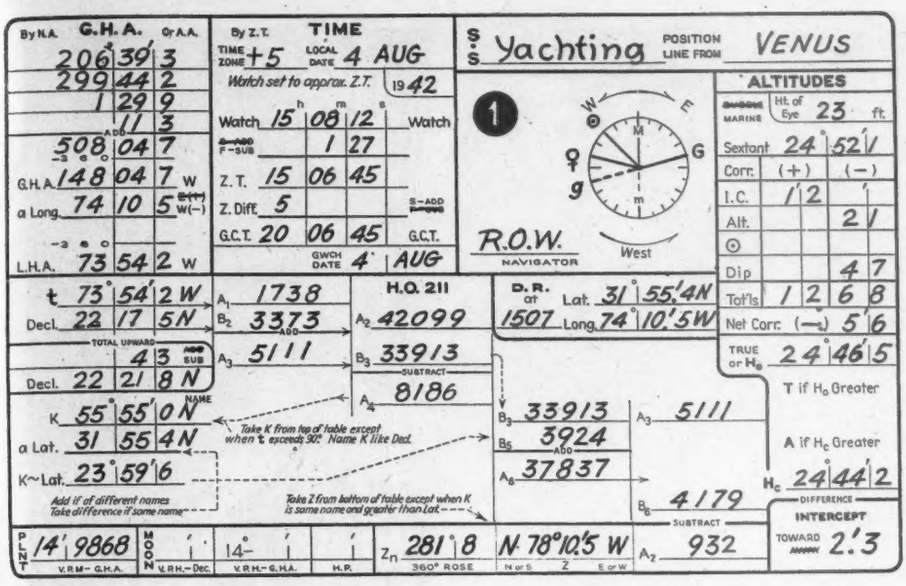
When the primary object is to teach navigation to students of varied and uncertain educational background, the longer academic courses have been materially simplified. The degree of this simplification has depended somewhat on circumstances but principally on the extent to which much of the old be omitted and the new accepted not only as simpler but as equally sound in principle. Mathematics, other than arithmetic, is not essential to the mastery of modern navigation. However, experience in the use of tables, some drafting, and an understanding of simple algebra and plane geometry are of distinct value. Trigonometry and logarithms are mathematical tools rather than principles of navigation, although principles often may be expressed by formulae. The basic principles which every navigator must understand are those of Sumner and Saint-Hilaire whereby the navigator lays down a line of position and interprets its meaning. He should have a general knowledge of the universe and the motions of the navigational bodies. The principles of celestial mechanics, however, are left to the astronomers who compute the figures which every navigator has always taken from an almanac without question. Likewise, navigators accept the pre-computed altitudes and azimuths of *H.O. 214* with no thought of the varied formulae by which they have been computed. Whole degrees of latitude (L) and hour angle (t) are used to work the sight from an assumed position (A.P.) because this is the best way to use the tables. Is a man a better navigator because he has previously learned to work from the D.R. by some so-called basic method?

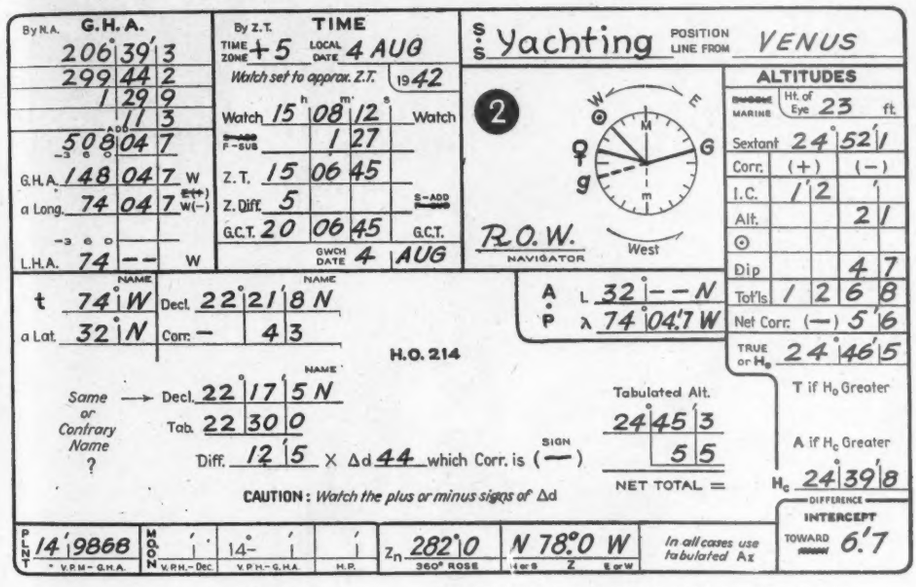
Methods of teaching and what to omit when seeking simplicity are questions involving various considerations. The advantage of always doing the same thing in the same way is generally recognized. The student learns more quickly and the navigator works faster with fewer blunders. All courses, long or short, with minor exceptions, now use the inductive approach to celestial navigation. Equal altitudes and altitude differences are demonstrated and the student is required to plot lines of position from given data. In the discussion of the earth and the celestial sphere it is important to show that correcting an altitude has the effect of placing the navigator at the earth's center. As a corollary to this conception, it is easy to understand the similarity or interchangeability of various great circles, arcs, angles and positions on either sphere. Thus the apparent position of an observed body is also its sub-astral or geographic position (G.P.) and, again in the interest of simple thinking, the navigator's triangle should be considered as on the earth rather than on the celestial sphere. Time and time-keeping have been simplified by almanac developments and by radio time ticks. The navigator need work only with civil time measured by the duration of a civil day, the average time for the sun to appear to move once around the earth. This kind of time, when classified as zone time, offers the simplest approach to practically all of the time problems of modern navigation. Sidereal time may be relegated to the astonomers whence it came. When circumstances permit, the *Air Almanac* is far simpler to teach and to use than is the *Nautical Almanac* and yachtsmen should certainly use the *A.A.* even though experienced with the older almanac.

The noon sight is continued because of its convenience although it is less important than formerly. Noon constants are omitted as nonessential. Ex-meridians and meridian altitudes other than of the sun are omitted because of the ease of working any sight for line of position. Whatever the methods to be taught, there is merit in arranging the work to show useful results with minimum delay. Thus where two methods are taught, the tendency is to teach *H.O. 214* first, to be followed by one or another of the methods for computing altitude and azimuth. Here again, this is the inductive method and is the best approach, provided practice with small tables is not neglected. Such neglect is only one degree less culpable than that of young officers who think only of the gyro and forget the magnetic compass.

The extent to which these steps toward simplicity have been utilized varies widely. What has been outlined reflects the best of the shorter courses given by the Navy. On the other hand, some of the university courses preparatory to naval service







Upper left: With the Nautical Almanac *and* H.O.211 *from the dead reckoning position (D.R.)*

Lower left: With the Nautical Almanac *and* H.O.214 *from an assumed position (A.P.)*

PRIMER PROB NO	P5−32 (a)	
Body ♀	3	Date 4 AUG 42
GCT	20	06 45 WATCH
SHA (STAR ONLY)		A.A.
GHA	146	23 A.A.
CORR	1	41 − A.A.
GHA	148	04 W
LONG	74	04 W ASSUMED
LHA	74	−− W INTEGRAL DEGREE
DEC	22	18 N A.A.
LAT	32	−− N INTEGRAL DEGREE
Az	N 78° W	Zn 282° 214
Δd (MINUS)	44	
ALT	24	45 214
CORR	−	05 214
Hc	24	40
Ho	24	47
a		7 TOWARD

Above: With the Air Almanac *and* H.O.214 *from the same A.P. as (2) but with rounded figures as in air navigation*

The solutions have been reproduced from the author's Primer of Navigation *Key by permission of D. Van Nostrand, Inc.*

THREE SOLUTIONS OF THE SAME SIGHT

The problem: *Observed the planet Venus from about 365 miles east of Savannah in the afternoon of August 4th, 1942. D.R. 31° 55′.4 N, 74° 10′.5 W. Hs 24° 52′.1, at W.T. 15h 08m 12s. W.E. on Z.T. 1m 27s fast, I.C. + 1′.2, Ht. Eye 23 ft.*

Required: *Find the Intercept (a) and the Azimuth (Zn) for plotting the line of position*

continue in the ways of scientists who are not navigators. Thus certain introductions to nautical astronomy begin with "A logarithm is an exponent" or "The earth is an oblate spheroid" and the subject is developed accordingly. In actual practice, many of the recently trained officers use the *Air Almanac* with *H.O. 214* and do the work surprisingly well. For Merchant Marine licenses, the examinations are such as to prohibit the ultra in simplified teaching. A navigating officer, however, may work as he sees fit with the facilities at hand. Differences between Merchant Marine and Navy practice are beyond the scope of this article, but it seems altogether probable that, with the return of peace, these differences will become less.

Thus far in this article the simplicity discussed has been that attained or attainable (1) by simpler statements of old principles and the elimination of nonessentials, and (2) by the use of the newer methods for line of position as practiced by American mariners. The presently restricted *H.O 218* tables used by air navigators are simpler but somewhat less accurate than their prototype *H.O. 214* and the extent of their future use for surface work is a moot question. No reference has been made to computing machines or special slide rules, or to mechanical or graphic methods because for various reasons it seems unlikely that such devices will come into general use at sea. Another popular thought is that the great advances in radio navigation since Pearl Harbor will completely eliminate the need for celestial navigation. This seems unlikely.

Neither is it safe to assume that a trend of today is a new conception. *A Navegação sem Logarithmos* (Navigation without Logarithms) by Commander Radler de Aquino of the Brazilian Navy, published in 1903, was the forerunner of his perfected *Altitude and Azimuth Tables*. The computed altitude and azimuth from an especially assumed position are found from a relatively small spherical traverse table. When working sights, Aquino states that: "G.A.T. is *immediately converted into arc* . . . This procedure has the *triple* advantage of simplifying the determination of *t*, abolishing the arguments in time in the tables and the necessity of dealing with data expressed in time . . ." Far in advance of its time when first conceived, the use of Aquino's excellent short method is at present relatively limited. However, his desire to eliminate time as a measure of arc when working a sight may now be completely attained with either of the American almanacs. This development, and particularly that of *The American Air Almanac*, many consider as this century's most important advance in celestial navigation.

Kent Hitchcock

Two of the prime requisites of all types of air-sea rescue craft are speed and the ability to go to sea under almost all conditions. The Army's 85-footers are the last word in boats of this type

AIR-SEA RESCUE

The Normal Hazards of Overwater Flying Indicate an Important Postwar Rôle for Aviation "Crash Boats"

By CRITCHELL RIMINGTON

IT WAS some three hundred years ago that Sir Isaac Newton made the historic discovery of the force of gravity. His conclusions were reached as a result of his being thumped on the head by an apple; man now concurs with that learned gentleman's findings by quoting the adage that "everything which goes up must come down." This phenomenon is graphically demonstrated by the passage of an airplane yet, while planes eventually return to earth (or water, as the case may be) in accordance with their pilots' intentions, they occasionally come down when — and where — they are not supposed to. So, to the many problems of postwar aviation must be added the responsibility of establishing, on a world-wide basis, some type of rescue service to provide assistance for planes which have been forced down at sea. And, although both ships and planes will be employed in this essential operation, it is the writer's belief that boats — and relatively small ones of special design and high speed — will perform a substantial majority of the surface operations.

It is only within the past twelve to eighteen months that public attention has been focussed on wartime air-sea rescue activities. In the general press and in the pages of YACHTING, much has been told of the special types of rescue craft which have been used, and of the various techniques employed, by the armies and navies of both this country and our Allies. In the first months of the war, the British established a highly efficient air-sea rescue service through the combined efforts of the Royal Navy and the RAF, whose principal concern is the rescue of aviation personnel forced down in the English Channel. Today, American "crash boat detachments," which are operated by both the Army and Navy, are in service not only in continental United States but in nearly every distant theater of war. The importance of this combined service is tremendous, not only in terms of the hundreds of pilots whose lives have been saved but also because of the great psychological effect it has had on fliers who now know that a crash at sea will not necessarily result in days of aimless drifting in a rubber boat, or possible death. Not long ago a famous admiral stated the Navy's view of the matter bluntly. "We want our fliers back," he said, "they are not expendable."

To date, the American air-sea rescue services are very definitely a product of the "school of hard knocks." For some reason unknown even to ourselves, we Americans persist in doing things the hard way. Crash boat operations are a case in point. Shortly after we entered the war, a joint air-sea rescue advisory agency was established in Washington to enable representatives of the Army, Navy and Coast Guard, as well as those of the British, to pool operational equipment and technical information. As a result of this tripartite clearing house, it is hard to believe that our Army and Navy representatives could fail to recognize the weakness of having two individual rescue services — one for the Army and one for the Navy — when the result of so doing meant different training techniques, dual operating units and different types of boats. What makes the matter even more puzzling is that it is also self-evident that a single service, possibly copied from the British plan, would obviously increase efficiency in every particular. The picture would be discouraging, indeed, if it were not for the fact that this end may be achieved through the recent action of the U. S. Coast Guard in establishing an air-sea rescue service which may be expanded to serve both commercial and private aviation in the coming postwar years.

U. S. Coast Guard Photo

Air-sea rescue operations require coördinated operations of both boats and planes

Throttle! One of the Army's 85-foot PRB craft rescue boats under trials. Designed by Long and powered with Packards, this one was built by Wilmington Boat Works

1. Morris Rosenfeld

No one can deny that in the years to come aviation will play a dominant rôle in domestic as well as worldwide passenger and freight transport. Nor, on the basis of operational experience to date, is it too much to believe that special types of rescue boats will, in so far as overwater flying is concerned, be what the Coast Guard's cutters and tugs are to surface carriers.

2. Pan American Airways

Important in the Coast Guard's plans will be the use of pilots who will fly seaplanes and helicopters, and the operation of a wide variety of small craft by men who have received diversified training in handling invasion craft in combat areas. That this new responsibility should be given to a service which has been conducting rescue operations for the past 150 years is highly desirable, particularly since the Coast Guard now includes operating divisions which discharge the functions of the former Life Saving Service, Revenue Cutter Service, Lighthouse Service, and the Bureau of Marine Inspection and Navigation, all of which are concerned with some phase of safety at sea.

* * *

While the first Coast Guard air-sea rescue unit, as such, went into operation in San Diego in December of 1943, there are similar units covering every U. S. coastal area in which there is an appreciable amount of flying. To date, the San Diego unit has been instrumental in saving the lives of 121 Army, Navy and Marine pilots and crewmen whose planes have crashed at sea, as a brief resumé of its activity indicates.

During this time only two airmen who were able to get free from their planes and into a raft or life jacket, have been lost. One of these two, although wearing a life jacket, was dragged under by his parachute and drowned before he could get free from the harness. The other was not located until after he had succumbed to cold and heavy seas. There have been others; pilots who collided in mid-air or failed to pull out of practice dives and could be conceded no chance of surviving the crash. But of those who had a chance to live, 98 per cent have been picked up and brought home to fly again.

This air-sea rescue unit is an excellent example of the importance, and the effectiveness, of coördination which now exists between the various armed services. When a crash occurs, there never is a question of where the responsibility lies. No matter whose plane has gone in, no matter what field is nearest, the air-sea rescue unit immediately takes over. If an Army crash boat, a Navy destroyer, or a blimp happens to be near the scene, the unit calls the signals and the one nearest does the field work.

In most cases, search planes or rescue boats are first on the scene. These craft are on a 24-hour alert status. They have no other function and their crews know all the skills of search and rescue. Planes and boats are spotted at strategic points along the 250-mile stretch of Southern California coast and on the islands offshore. A special telephone circuit and two-way voice radio give the control room in San Diego instant contact with all rescue craft and with key military establishments throughout the area. It requires only seconds to tell any plane or boat the location and circumstances of a crash. Radio-telephone keeps all units informed of the progress of a search.

Planes and boats usually work as teams. In most cases the planes, having more speed and a greater range of visibility, will be the first to locate a survivor. Boats are immediately notified of the position, and the plane then marks the scene with a smoke light, drops survival equipment to personnel in the water, and remains circling until the rescue boat arrives. Now and then it is necessary for the plane to land and effect the rescue without waiting for the boat. And quite often it happens that the boat is on the spot before a plane can get in the air and under way for the position.

At the present time, the boats used for this work are 63′ Navy type AVRs. Among the crew of ten on board is a pharmacists mate, well qualified and well equipped to assist injured or exhausted airmen. Six stretchers are slung in the modified sick bay.

Most of the pilots who fly over Southern California waters are getting their final operational training. Since combat aircraft work in groups rather than individually, and train the same way, it seldom happens that a plane goes down unnoticed by another pilot. Thus, even though a pilot may have no chance to send a distress message, he can be fairly certain the rescue unit will have word of his trouble before he can more than get on his raft and catch his breath.

Telephone lines are kept open at all times for crash emergencies. When the control tower at any of the military airfields picks up a radio call from a plane in trouble, or witnessing trouble, a call goes through to the air-sea rescue control room. There, after the control board is scanned to ascertain the disposition of rescue craft and other available facilities, the position is plotted and passed to the nearest planes and boats. The only factors influencing the length of time a survivor has to wait are distance and the accuracy of position estimates which have been given by the survivor or by witnessing pilots. On an average he can expect to be picked up in about 45 minutes. Even under unfavorable circumstances, he shouldn't have to bob around on his raft for more than two to three hours.

3. Morris Rosenfeld

People accustomed to reading about pilots spending days or weeks adrift will be

(1) "Panair IV-A" was specially designed as a seagoing offshore Clipper tender. She is 50 feet o.a. and is capable of 27 m.p.h. (2) Pan American's 55-foot welded steel tug-tanker. Note her specially designed ramp stern. (3) This 36-foot Clipper tender is the prototype of Pan American's most recent series of launches for their transocean bases

surprised to learn that, since the San Diego unit went to work, only one pilot has had to drift around overnight waiting to be located. He was lost from a carrier during a training flight and neither he nor his ship had any idea where he was. It wasn't until the following morning that he was spotted by a search plane from the carrier, nearly 100 miles from where he was originally estimated to have been.

By contrast, another pilot was back in the air in a rescue plane just eight minutes after ditching his fighter plane off Seal Beach. He had told his base by radio that he was going down, the base advised an air-sea rescue plane which happened to be on patrol nearby, and the pilot had hardly inflated his life jacket before the rescue plane landed and taxied up to him. Some of the crash boats have achieved even speedier rescues. They are stationed in the areas where there is the most flying and now and then they get one practically under their noses. One pilot who had time to give an accurate report of his position before parachuting from high altitude was able to watch the rescue boat rushing out to meet him as he floated down.

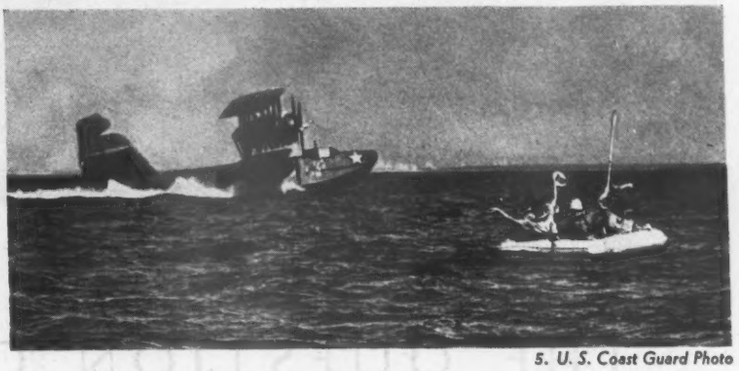
* * *

Although the Coast Guard's rescue fleet now consists, in addition to its larger vessels, of but one type of crash boat, it is anticipated that it may be supplemented with other types of craft (104s, 85s, 83s, 45s and so on) as the war progresses. It is also in the realm of possibility (and this should be of interest to designers and builders) that the experience of the next year or so will warrant the development of one or more new types of high speed craft.

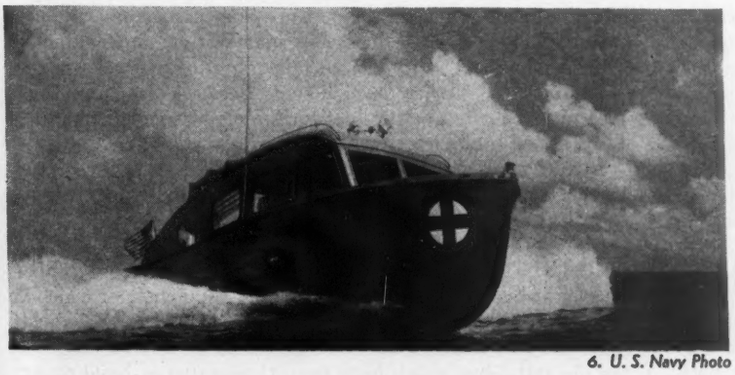
A far from unimportant consideration of air-sea rescue operation in the years to come is the part that yachtsmen and yachting organizations, particularly ones such as the Auxiliary and the Power Squadrons, will be asked to play. Aviation circles optimistically talk of private planes being as common as is the family car; commercial lines are now predicting an endless web of commercial routes, of which many will be over water. Hence it can only be assumed, and here Mr. Newton heaves in view again, that there will be countless forced landings or actual crashes. It is in such instances that the skipper who is in the vicinity will have to know what to do and how to do it quickly. As a preliminary to further information on the subject, all yachtsmen should commit the following to memory. It is from a recent issue of the "Notice to Mariners," and reads as follows:

"A plane will fly several times across the bow of the nearest surface vessel, opening and closing the throttle, and then will fly in the direction of the plane in distress. The signal will be repeated until the ship acknowledges by following the plane. If possible, the plane will remain in sight of the surface vessel until the latter sights the plane in distress. All planes will resort to use of available pyrotechnics as necessary to attract the attention of surface vessels. Air-sea rescue planes of the U. S. Coast Guard will have special markings of chrome yellow on the wing tips and wing tip floats. These planes are used in assistance of distressed surface vessels and planes. The coöperation of operators of fishing vessels with the air-sea rescue planes may mean the difference between life and death to some fisherman or aviator."

4. U. S. Signal Corps Photo



5. U. S. Coast Guard Photo



6. U. S. Navy Photo

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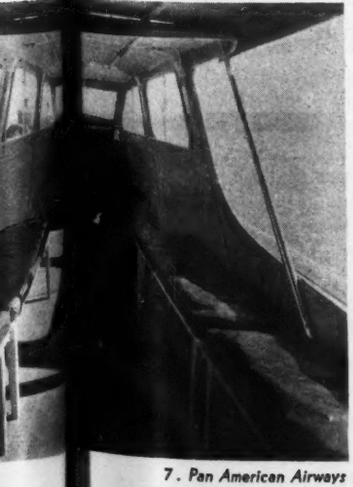
There are other types of special duty craft which the growth of trans-oceanic aviation will undoubtedly cause to multiply in the years to come. These are the launches and beaching boats which, first developed in the United States for Pan-American World Airways, have also been built in this country for use by various foreign airways systems. Used as tenders and utility craft for servicing flying boats, they range in size from 24 to 50 feet over all.

The smaller craft, which are open launches, are used at transpacific island stations where sheltered lagoons and harbors do not require cabin boats. They average something less than 20 m.p.h. and are equipped with high-pressure auxiliary pumping engines. The larger boats have been designed as seagoing offshore tenders, and are equipped for towing and passenger carrying as well as fire-fighting and general utility operations. For example, *Panair IV-A*, which is a 27 m.p.h. 50-footer, has a passenger capacity of 40, a two-way voice radio and a 1¼" deck monitor for throwing either water or Foamite. Equipped with powerful searchlights and a complete inventory of communication, fire aid and repair equipment, all of these craft are outstanding examples of special purpose vessels. They are required to do anything and everything — and quickly — and their operations are as proportionately vital as are the flying boats themselves.

Another unusual vessel in the PAA fleet is a 55-foot welded steel tanker which was designed to refuel Clippers without docking, or for use whenever open sea refueling may be needed. A novel feature of the tug's design is a hinged ramp at the stern, against which the plane may be snubbed while she is being serviced. Not the least of the tug's accomplishments is her ability to air condition the Clippers by special equipment carried aboard.

(Continued on page 90)



7. Pan American Airways

(4) Modern crash boats are fitted with many special devices. Here the crew are wearing "monkey suits" as they lower a victim into the sick bay. (5) Rubber boats are essential equipment for all military or naval planes making over water flights. (6) A special type of Navy rescue boat. (7) The commodious cockpit of one of Pan-Air's 36-foot launches

Howe Lagarde

"When I want ideas to help me plan my postwar boat, I shall turn to the plain, simple vessels of hard working seafaring men"

THE QUESTION OF PLASTICS

One Who Believes in Traditional Materials and Methods States His Case

By ROBERT S. FRENCH

(THESE ARE years of rapid transition. The urgent requirements of a wartime economy have accelerated the development of materials and new techniques to an unheard of degree. Some new have already been proven on the testing ground of war, and to an extent which assures their use in the postwar years. Others are still in the development stage, hence any estimate of their potential utility can be nothing more than conjecture. But, whether this or that new material or product has as yet been proven basically satisfactory, the very fact that they are the subject of continued experiment is in itself significant. It is important because it indicates a trend, and a trend almost invariably reflects "the shape of things to come."

Hence YACHTING continues to report those developments in the marine field which are, or will be, of lasting significance to the yachtsman. Most important is our desire to present both sides of the discussion of the presumed merits and weaknesses of the materials or techniques under discussion. Obviously, we cannot confirm all of the findings arrived at, nor do we necessarily endorse or condemn the conclusions which are reached. Actual use is the ultimate measure of utility.

Among the most interesting of the various types of building materials with which naval architects and builders are now concerned are the various types of plastics. In so far as their marine use is concerned, many are still in the development stage, hence many of the opinions expressed regarding their marine applications are necessarily theoretical. YACHTING'S recently conducted "Postwar Survey" indicated that as yet many builders and architects know so little about the various types of plastics that they hesitate to express an opinion about them. It can be presumed that the average yachtsman knows even less. For that reason, it is our intention to publish a number of articles on the subject, written by authorities in the field, during the coming year.

The following article, while not in that series, is of interest for a number of reasons. The writer is talking of the marine use of plastics in terms of his knowledge of their employment in the aviation field. While that experience does not necessarily offer a convincing parallel, it does show some of the many characteristics of the material (under certain conditions) which are still the subject of further development. Because of what it may mean in terms of a better boat for tomorrow's yachtsman, it is to be hoped that such development will be successful.

Mr. French's article will bring joy to the hearts of the "traditionalists" and will, perhaps, result in an equally strong rebuttal from those who disagree with him. — ED.)

BUILT of oak, teak and mahogany, bronze and copper fastened, to last a lifetime." This familiar line, which is often found in descriptions of fine boats, has a wholesome and convincing sound. The materials set forth therein are the old stand-bys which have been time-tested in building for the sea. But, however charming the nostalgia induced by the old traditions, it seems that we as moderns are dedicated to a search for the new. We are eager to have things invented and we are often prone to assume that the new is necessarily an improvement. Not so long ago, a new group of materials appeared on the horizon — plastics. Now, at the risk of being considered conservative, I venture to suggest that the *perfect* plastic "is not yet." Wait awhile! Let the chemist stir a bit longer in his laboratory and he will have it — the absolute, ultimate material. But my postwar yacht will not have plastic rails or plastic cleats or plastic et cetera. She will be "built of oak, teak, and mahogany, and will be bronze and copper fastened to last a lifetime."

This decision is not based on pure cussedness alone; there are still certain difficulties to be solved in the field of plastics before the yachtsman can adopt them without reservation. On the other hand, generations of experience and service have proved the "old-fashioned" methods and materials so long employed in fine yacht building. But how much is known about plastics and to what extent have they proved successful in actual use on boats? This much can be said: They have been tried and tried

again in the airplane in the last few years, and I believe the results merit some analysis.

An inveterate yachtsman and rabid sailing enthusiast, I went to work a number of years ago for a large aircraft manufacturer and immediately found myself on familiar ground. It turned out that airplanes have water lines, buttock lines, frames, hatches and bulkheads. In aviation, much of the terminology and some methods derive from ships and shipbuilding. There are keelsons and long fair curves — and a heck of a lot of gadgets that don't work quite right. Operating conditions are severe and about the only handicap absent is dry rot.

Then along came the war and a shortage of many materials for which substitutes had to be found. We couldn't get this and we couldn't get that, and for every deficiency somebody suggested that plastics be tried. I was put in charge of plastics tooling development and entered a welter of chain-molecules, urea-resins, catalysts, phenolic resins, and methyl-methaerylates. I was surrounded by enthusiastic salesmen, untiring chemists and starry-eyed engineers. We measured and mixed and tested and sweated in temperature-controlled rooms. (The temperature that was controlled was always about 110°.) We concocted mixtures as hard as glass and soft as seam putty, and some that looked like raisin muffins. After a year of it, I concluded my labors and turned in a report condemning our program and suggested that we try oak, teak and mahogany instead.

Having concluded with the plastics, I ventured into the Spare Parts Department. Here we make a thorough study of the airplane in conjunction with Army reports of parts usage. We are then in a position to advise the Armed Forces as to what parts and what quantities should be furnished as spares to keep our ships flying. The present day aircraft contains many plastic parts and I have had the opportunity to watch the service performance of such parts under conditions not too different from those encountered by yachts.

Plastic materials fall principally into two categories, thermoplastics and thermo-setting plastics. Thermoplastics are those which become soft and pliable with the application of heat and become hard again on cooling. They may be thus softened any number of times. In this category are most of the transparent (window) materials. On the other hand, thermo-setting plastics are hardened by the application of heat and, once hardened, will not become soft again. Molded plastic products are mainly in this class and often contain a reinforcing or filler material such as cloth or wood flour.

Both types are amorphous substances; that is, they are lacking in crystalline structure or grain, as are glass and tar. On the other hand, almost all the familiar boatbuilding materials have a grain to their structure — wood, bronze, canvas, etc. Certainly all the high-strength materials are characterized by this grain. The amorphous substances tend to be either brittle or soft, to fracture or deform easily. To my mind, these properties are exhibited by many plastics.

Specifically, I saw recently a curved plastic airplane window which had been left lying in the sun until it had drooped to conform to the contour of the ground under it. Everyone who views our scrap pile of these windows that have cracked during assembly is invariably aghast. Moreover, for every one of these windows built into a plane, we supply another as a spare. When one considers the short combat life and high rate of attrition of our aircraft, this indicates a life expectancy of only a few months, and this conclusion is backed up by consumption reports. One would think that such a situation does not indicate that plastics are the ideal material for making hatch, windshield or skylight, yet its use on the military airplane is justified by its light weight and by the fact that cost and upkeep are not considered.

The high cost of plastics is in part due to manufacturing processes. Curved plastic windows are made in dustproof rooms. The flat sheets are carefully lifted out of electrically controlled ovens and formed over a mold by men wearing white suits and gloves. The deeper or more complex curves are usually formed in a vacuum mold wherein the flat sheets are sucked down into the contour by exhausting the air from the inside, an expensive procedure. It should also be pointed out that it is not always possible to avoid slight wrinkles which impair the optical quality of the material. Temporary repairs to plastic windows require a special technique, and the joints are opaque. Consequently, builders who contemplate incorporating plastic windows in their postwar craft might do well to furnish their dealers with "spares."

Due to the shortage of airplane aluminum, we have, from time to time, attempted to substitute formed plastics for certain outside surfaces of a non-structural nature, such as fairings, fillets and cowling; but in each case we have had to go back to the original material due to excessive cracking, tearing or deterioration due to weathering. Structural parts such as wing tips, control surfaces, tabs, etc., have been tried experimentally and in some cases even in production but, within my experience, none has proved satisfactory. Many plastic items used in the interior of the airplane have had unsatisfactory "spares" records.

Because of the high cost of plastic materials, it has been the dream of everyone involved in the plastics tooling program to be able to construct a wood core and cover it with a thin plastic skin. Both thermo- and thermo-setting plastics have been tried and some beautiful jobs have been turned out; but it is usually not long before the plastic begins to chip and crack off the wood and the tool is rendered useless. I think the reason is that the plastics have a greater thermal expansion coefficient than the wood (which has very little) because later these same cores have been stripped of the plastic and resurfaced with a low-melting-point metal having nearly zero expansion and then have given good service. One of the plastic materials that I tested had an expansion eight times that of steel.

As to working plastics, special problems are encountered; although the manufacturers furnish recommendations, determining proper manufacturing techniques still requires considerable experimentation. We have had trouble drilling the transparent plastics. If drills not specially sharpened for the job are used, cracking results, especially if the holes are near the edge. Milling and shaper cutters also must be ground specially for these materials, and speeds and feeds carefully adjusted. The thermoplastics cannot be worked on a machine sander as the frictional heat will cause the material to flow. The thermo-setting plastics, especially the phenolic resins, when being machined, create a dust that is most irritating to the mucous membranes. These plastics are hard on cutting tools, dulling them quickly. Certain lacquers will adhere well, but the standard marine paints do not, as the plastics are non-porous.

On airplanes, not all plastics have been bad. A hard phenolic resin sheet with a cloth binder, known as Micarta, is used extensively, especially for cable fairleads, and stands up well in service. The synthetic rubbers that are not affected by oils are undoubtedly good. Door and hatch seals made of synthetic rubber seem to stand up longer and do not stick as much as natural rubber. Molded plastic electrical fittings are well known to be satisfactory.

There is a material known as Pregwood which is plywood

Richard Boerstler aboard his Plexiglas boat which he built himself. The framework is of wood and aluminum, around which Plexiglas sheets were bent and fastened with cement

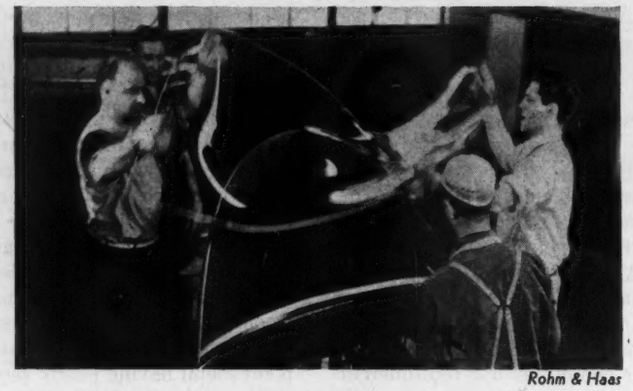
Rohm & Haas

whose pores have been completely filled with a plastic, rendering it hard and dense. This material is strong and not subject to rot, but it is hard to work. It can be bandsawed, but quickly dulls the blade, and the other woodworking machines and hand tools are not suitable for working it.

Another group of plastics, the cold-setting resin glues and the thermo-setting bonding plastics for wood, are of unquestioned excellence. But these plastics are really glues, at least by application. Laminated woods bonded with these agents are not plastics: they're laminated *wood* bonded with plastic glue; but for some reason they are often referred to as plastic. Resin bonded, laminated keels and knees seem to me to show promise of becoming as generally excellent as hollow spars.

So we see that the present day plastic materials are not entirely free from practical disadvantages. Additionally, in my opinion, they possess more or less intangible faults from the esthetic point of view.

When a yacht designer sits down with streamlining in his head (and no concern for cost), by the merest stroke of his pencil he can create forms that flow and curve. He can at the same time create a design on which it would be inviting suicide to go forward, to handle sails or ground tackle, in even a moderate blow. Yachting consists of about sixty per cent fixing something that is "busted" or fouled; if you can't get around on deck in a seaway, you had better increase your life insurance. A designer sitting at his drafting board blowing up a doghouse or a cabin trunk into some fascinating new shape, or cutting down the usable deck space, is not necessarily creating a beautiful or functional boat when viewed from the standpoint of the necessities imposed by the sea. At the speed at which most cruisers move, streamlining for wind resistance doesn't mean much; safety and durability of construction are more than ever basic.



Rohm & Haas

"Curved plastic windows are made in dustproof rooms. The flat sheets are carefully lifted out of electrically controlled ovens and formed over a mold"

Then, this tendency of the "modern" to multiply the gadgets aboard. A considerable group of yachtsmen and designers is drifting toward a sort of floating California bungalow that is chock-full of gadgets. What is a boat for if not to get away from the humdrum of the everyday. A boat should be an escape from the tyranny of the gadget, she should be an embarkation on the quest of the simple life. I am not of the great American school that takes to a picnic portable radio, phonograph, family dishes, a folding stove, table, chairs, cards, etcetera. And I am not going to take these things along when I go yachting. I am among those who go "down to the sea in ships," but not in a floating trailer.

About twenty years ago, I used to sail in a Class Q boat whose cabin accommodations consisted of a bucket, a five-gallon water bottle, and two transoms. I was too young to rate one of the transoms when cruising but I still remember delicious nights of slumber, wrapped up in the spinnaker in the forepeak. The boat was manned by a seamanlike crew and she was always neat and clean below, and as comfortable as might be expected of a "Q." One of the high points of my life was a screaming passage in her of 330 miles in 56 hours — with a diet consisting of Fig Newtons.

More recently, I sailed in one of the latest Eight-Metres. She has four berths, toilet, plastic galley and a big outboard motor below. The cabin trunk is a molded, streamlined affair as are the covering boards. When she's heeled down, you can't go forward on the weather side by walking along the trunk sides as there's nothing there but slippery curves. You can't get hold of the rail either — just more curves. In a hard chance, the diet would most likely be Fig Newtons because the galley is too slick to use in a seaway. Two of the berths are all right, except that they are only six feet long; the other two are reminiscent of coffins and about as hard to get out of. I slept aboard her a couple of times — comfortably wrapped up in the spinnaker in the forepeak.

Some wiser than I have said that a seagoing vessel is man's finest work of art. Maybe that is a little strong but there is an art quality in a fine boat. Certain structures have been associated for so long with the men that built them that they have come to possess a sort of humanity — the Dutch barn with its silo, the Gothic cathedral, the old whaling ship. The automobile with all its modern design is not yet an art and, possibly for that reason, its design changes yearly. How old-fashioned you are if you drive a '35 instead of a '40 model! For comparison, look at some of the fine wholesome ships and yachts built a half-century ago which have retained their intrinsic value year in and year out. The ones that have survived best are the ones that were designed and built closely following proven and conservative practices. It's still the same old ocean.

It is to me a matter of intense enjoyment to see beautiful boats and the excellent workmanship that is put into them. Some of the finest cabins I have seen have been worked out in natural woods and they have character and texture. They are soft warrens in a hard world, places to which one can retreat and rest from the onslaughts of those who live for getting and spending. I'm not going to desecrate my snug cuddy with an assortment of textureless, characterless plastic trim materials of which the best are made to resemble wood or other natural materials. When I want ideas to help me plan my postwar boat, I will turn to the clipper ships, the Virginia pilot boats, the plain, simple vessels of hard-working seafaring men. I will not look to the automobile, the airplane nor the harsh functional interior of the chrome and glass kitchen. And, while the aeronautical designers are trying to produce a plane that will go 1000 miles an hour instead of only 800, I'll be speculating whether raking the mast a couple of inches would add a tenth of a knot to the speed of my little cruiser.

The interior of this cruiser reveals a pleasing combination of natural wood, plywood, stainless steel and composition board

Rosenfeld

"My first raised deck auxiliary was the Crocker-designed 'Felicity.' With a water line length of 23 feet, she was a lot of boat"

CONFESSIONS OF A DAY SAILOR

In Praise of the Day Sailer, and the Story of a Search for the Perfect Boat

By LOUIS H. MERKER

AS FAR as I am concerned, you can keep your sextants, direction finders and chronometers. And why do I cast aside all of the gear with which a yachtsman rides his hobby? The answer is perhaps obvious, for I speak of a special kind of nautical hobby — day sailing. It needs no apology. The day sailor is a different individual from the cruising man. There must be thousands of men and women who, like myself, spend a few hours on the water every week-end. They deserve as much recognition as the cruising yachtsman, for they are philosophers as well as sailors. To them half a loaf is still better than none. Furthermore, the future of yachting may well rest in their hands, since it is their sons and daughters who will probably be the cruising and racing fans of tomorrow.

How I went about getting the perfect boat for day sailing, and how long it took me, is quite a story. Five years ago I was one of those rabid camera bugs who are never found without camera, filters, tripod, and bulging pockets. One fatal Sunday morning I decided to take some marine shots. Never will I forget that small sloop I boarded in order to take my pictures (I thought). She was an ordinary knockabout centerboard job, but to me she seemed the sleekest, loveliest thing in creation. I had never been in a sail boat before, and perhaps I need not add that no pictures were taken that day.

Two weeks later I became convinced of the fact that I was run down and was badly in need of a vacation. The first of June found me in Provincetown, on the tip of Cape Cod, which is a delightful spot where sail boats may be rented by the hour, day or week. Daily, for over a period of nearly a month, old Antone (a retired Portuguese sailor) and I rounded Long Point at Provincetown in a 20-foot centerboard sloop. Antone was small, shriveled, half blind, and brown as a nut. He taught me to "see" the wind instead of feeling it. Most important, he made me wind conscious, an awareness that will always remain with me. Toward the end of my "schooling" an interesting incident arose. Antone and I were planning to sail from Provincetown to Boston, a distance of some fifty miles. This "voyage" was to be my graduation test. "What kind of food shall I bring along for you?" I very politely asked. He glared at me with his one good eye and bellowed: "Water! A good sailor always thinks of water first, food later." Thus I flunked the first part of the examination. But it was worth while, and to this day I always think of "water first, food later."

When I left for home in July, a stop-off was made in Boston and there a Zenith 20-foot sail boat was ordered. This may sound as if I had reached the end of my search for the ideal boat, but actually it was merely the beginning. The Zenith I had bought was late in being delivered and I realized that the summer was rapidly slipping away. As a result of some detective work, I discovered that someone in Mamaroneck had just bought a New York "30" and was offering his Shamrock 23-footer for either sale or charter. Gleefully we chartered her and one fine Saturday we arrived to sail her down Long Island Sound to City Island. Two simple, trusting neighbors came along with me. Theirs was certainly a touching "confession of faith" in my sailing ability.

After I had hoisted the jib upside down, the yacht club launchman beneficently towed us out to the harbor's mouth and on into the Sound. His purpose was to protect the rest of

Rosenfeld

"'Ethel II' had almost as much room in her cockpit as does the average well designed cat boat"

the fleet. As a result of the act of this seagoing Samaritan I have always believed that there is a special kind of God who takes care of camera bugs and would-be sailors. Time passed. We finally saw Execution Light and sometime later our boatyard at City Island hove in sight. The yard was located next to a bridge and, in our attempt to show off, we hit the bridge with our mast and wedged it under the span at a very rakish angle. Nice, charming boys on the bridge threw down cigarette butts and burned a hole in the jib. Luckily, the local work boat pulled us off to safety, and just before we capsized! For weeks afterwards the work boat was kept ready, motor running, every time we hove in sight.

Eventually my pride and joy arrived. She was 20 feet long, 7 feet beam, round bottomed and had a metal centerboard. We launched her in a pouring rain and named her *Screwball*. (No comment, please.) As I look back, we went out on days that were rough enough to keep a forty-foot ketch at her mooring. Our formula, however, was a simple one; we didn't know any better. Strange to say, no serious mishaps occurred except on the occasion of our hitting a float and moving it about six yards. By the end of the summer we knew we wanted a bigger boat. I am using the editorial "we."

For many years patients of mine (even the dead beats) had been singing the praises of Florida. Suddenly, for the first time, Florida began to mean something. A winter vacation down south meant a couple of weeks of winter sailing. By now YACHTING was a household fixture. Feverishly I scanned the boat ads. Sure enough, one of the brokers had a Bounty sloop for charter. The middle of December found my wife and myself doing light housekeeping at Fort Lauderdale, on board the *West Indian*.

The amateur skipper in charge of the *West Indian* had just come back from the Honolulu Race and was grooming her for the Havana Race. It was extremely fortunate for me, as he was the one who first introduced me to light sails. The *West Indian* had the biggest genoa jib I had ever seen, and with it we used to sail circles around the local schooners.

Incidentally, we met a new breed of people in Florida. They called themselves "sun bums." Summer found them on Long Island Sound or the Great Lakes. Winter, to them, meant Florida or Bermuda. The boat they were aboard was either their own or belonged to a friend. "They sowed not, neither did they reap. Yet the Lord took care of them." They had a philosophy of life all their own. It ran something like this: Instead of working twenty years (like me), and then going in search of a little fun, they took their pleasure first and intended to settle down later. Perhaps I'm crazy, but I wonder what the war did to their philosophy?

Sailing in Florida waters was quite a thrill yet, strange to say, I had the same peculiar reaction at Fort Lauderdale that I had experienced on the Sound. There again I found that a few hours of sailing is really all that I crave. Then I tire of it, but quickly find that I am eagerly looking forward to the next day. I have sailed from City Island to Port Washington and back dozens of times and have never made the same trip twice. Every "passage" is another slice of adventure extracted from a somewhat mediocre existence. It might be compared to reading love stories or detective stories all your life. The same theme is there, yet there is a variation in each event.

As soon as the *Screwball* was hauled out for the winter I learned a new sport, "winter shopping" for boats. Finally, in a City Island boat yard, I met my next love, a Sound Interclub which was in beautiful condition. Early next season *Screwball* went to a new owner and I had my latest love. Here was a dream boat if ever there was one, a boat possessing beauty, speed, and temperament — all in one. She was a prima donna in every action. After a while, however, I began to suspect that she looked down on me. At times it seemed as if she actually sneered. (I told this to a racing man, and strange to say, he immediately understood what I meant.) I was 'way out of my class, and the boat knew it. In my blind landlubber's way, I was groping for some ideal without knowing yet what it was. Owning the Interclub was like being married to a movie star; by the end of the summer it was actually wearing me down. So, one fateful Sunday in September, I called a yacht broker, and within one week he had divorced me from my prima donna. It took me about two weeks to realize my loss, and then began a frantic search to replace the void.

By that time, however, certain definite ideas were beginning to crystallize. My future day sailer was gradually being built (in my mind) plank by plank. I knew I was through with centerboarders. My new ship must have a keel, a cabin and an auxiliary. Toward the end of the season I saw my first raised deck boat. *Felicity* was her name, and she was bought on the rebound, just as a man, getting jilted by the girl he loves, marries another girl a week later. When the summer of 1942 ended, I had the questionable distinction of having owned three boats in succession in one short summer. My son, age seven, unconsciously spread my reputation at school. When his teacher asked the class to describe their father's hobbies he answered, "My daddy buys and sells and buys and sells sail boats."

Felicity was a Crocker-designed, twenty-three-foot, raised deck auxiliary, with "crawling" headroom in the cabin. Her one-cylinder engine proved conclusively what the "mystery of life" really was — when the motor would start! She was the biggest little boat you ever saw and took everything Long Island Sound had to offer. Her immensely roomy cockpit was a delight. Yet, while she had ruggedness and dependability, she was purely an in-between boat, for the perfume of the Interclub was still in my nostrils, and the transition had been too sudden.

The author, wearing his most pleased expression

"'Ethel II,' ex-'Geneva II,' ex-'Heigh-Ho III' was sturdy, almost massive, yet she had kindly lines"

By that time "we knew what we wanted." We wanted a fair sized boat, preferably with a raised deck, cabin with full headroom, decent motor, and good lines. My perfect day sailer was almost fully developed, and it set me to wondering why more raised deck boats are not built. They give you a tremendous amount of cockpit space, and besides, where else can you get as much cabin per foot of boat?

The fall and winter of 1942–3 began the end of my wanderings. To describe them as hectic is to put it mildly. My actions were not rational. Here I was, middle aged and married, yet my principal activity seemed to consist of looking for boats all over Long Island and Connecticut. Had I been afflicted with yellow fever or malaria, there would have been prompt isolation. With boat fever, however, they let me wander around at will.

As soon as *Felicity* was hauled out for the season my search began in earnest. I almost bought a dozen boats. Like that Kentucky Colonel who said there was no such thing as bad liquor, I liked every boat I saw. Poor Arthur, a boat surveyor, got gray and bow-legged in my service. But with his ice pick, knife, and drill, he saved me from many a headache.

One broker was driven nearly ragged. For months he sent me pictures and prospectuses. We covered Long Island, City Island, Mamaroneck, and Connecticut. Yet, when I finally met "the boat," it was through someone else. I shall always feel guilty for having bothered him so long. I offered to send him a check for his troubles, but he refused it and told me he would wait until he actually sold me a boat. In some fairness to myself, I will say I honestly was looking for the boat to end all boats. Toward this end I spent a lot of time, stolen from a fairly busy general practice.

By March, I was fit to be psychoanalyzed and still had no boat. By that time *Felicity* had been sold to a yachtsman who really appreciated her. The boat I wanted was completely built (mentally) from stem to stern, even to a permanent backstay and club on the jib. All I had to do was see the boat and I would recognize her. It was time to sit back and take stock. We decided to look over all the old boat prospectuses we had in our collection. One of them was the *Geneva II* (ex *Heigh-Ho*). As I looked again at the picture and read the dimensions, my eyes began to pop and goose pimples appeared. There was the raised deck, large cockpit, full headroom and good power plant. By gosh, there was my "day sailer"!

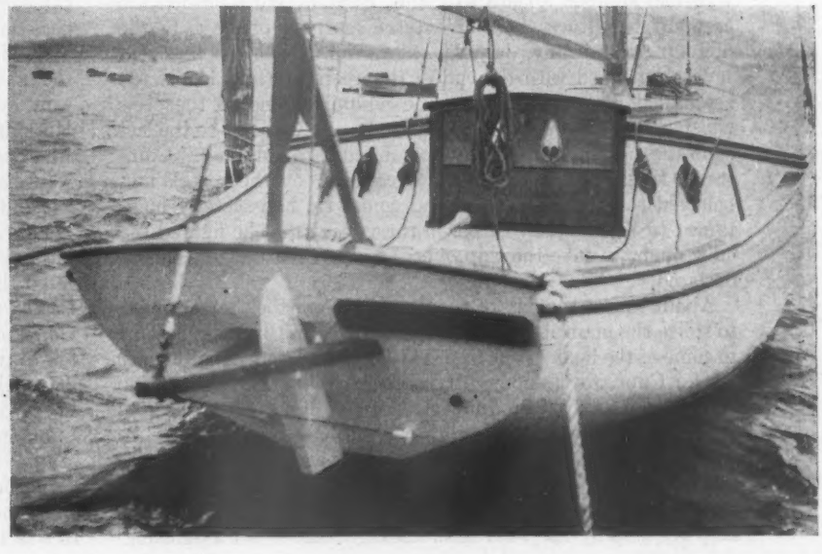
It took a few drinks of Scotch to settle me. Then I called up the old, grizzled broker. "Yes," he answered, "she is still available." In fact, the owner had recently lowered his asking price quite appreciably. Saturday afternoon found me at the boat yard. The yard itself was a revelation. In four years one can see a lot of boat yards. I've been in ones that were openly hostile to a prospective buyer. Others merely told you where the boat was. All you had to do was to sprout wings and fly up on her. Some actually pointed out the dry rot to you; but they had other boats, etc., etc. The courtesy and interest displayed at this yard took my breath away. They immediately assigned their foreman to me. He acted as a most obliging and attentive guide, bringing along a ladder, leading us to the shed, and actually handing me a flashlight. We entered the shed, and *there she was!*

A sailboat always looks bigger out of the water. In a shed, she looks four times as big. To this, add the raised deck factor, and the answer is "super colossal." Here was the "family day sailer".

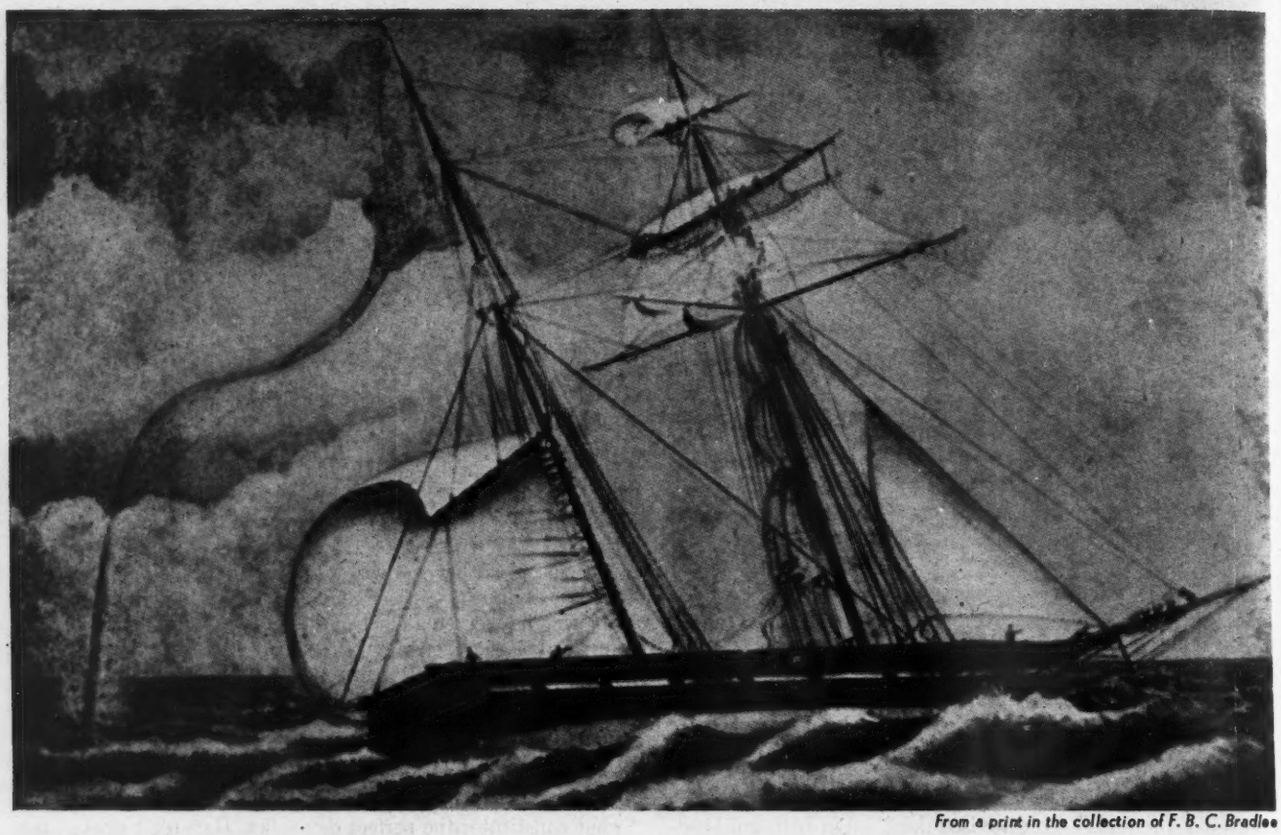
I will not bother you with too many details. We have had as many as ten people in her cockpit, and have not been crowded. My wife has served a chicken dinner for six below decks. But I am getting ahead of myself. Not only was the *Geneva II* (now *Ethel II*) "the boat," but through her I had the extreme pleasure of meeting her owner. I had read about people becoming attached to boats as one becomes attached to another human being, but I had never met such an individual. The man was actually sick at heart when I handed him the certified check.

You can win any nautical argument with me, but not on what constitutes the perfect day sailer. Haven't I worked myself to the very bone to find out? She should have only one mast. When a man has a brief afternoon to spend, he cannot waste too much time on sail covers. She should not be much over 30 feet over all to be a real single hander. The cockpit must be big, inviting, comfortable, and self bailing. To get that much cockpit in a 30-footer, you should have a raised deck boat. She must have a permanent backstay. (No running backstays for me.) Neither do I want any loose-footed jib. When I yell, "Hard a lee," I want nothing to think of but the tiller. As I am a family man, you'll understand why I insist on full headroom, good motor, deep keel, and all safety features. The part time sailor, by his very title, is not an expert seaman. So his boat must be sturdy enough and able enough to absorb a lot of mistakes.

I am waiting to have you tell me that my perfect day sailer is big enough to be a cruising boat; that she is big enough and safe enough for a two months' trip. And there you've got me. Who knows? Maybe that's why the old Breton fisherman's prayer hangs in my cabin, "Dear God, my little ship is so small, and thy seas are so wide, have mercy."



"'Felicity' was the biggest little boat you ever saw, and took everything Long Island Sound had to offer"



From a print in the collection of F. B. C. Bradlee

The U.S. schooner "Shark," a light draft naval vessel, a contemporary of and of a type similar to the "Dolphin"

THE VOYAGE OF THE SCHOONER "DOLPHIN"

Part II—The Mutineers' Story

By CHESTER SCOTT HOWLAND

WITH the usual maintenance of rigid discipline and strict obedience, and a satisfactory response to duty by the crew of the whaler *Globe*, it appears that conditions aboard the ship were normal. There was one incident, however, which stirred up a feeling of rebellion in the minds of the men who had shipped aboard at Oahu. Captain Worth called the crew aft to witness punishment the morning previous to the night of the mutiny, January 23rd, and Joseph Thomas was severely flogged with the end of the main buntline, before the assembled company. During the whipping, one of the crew whispered to others standing around him: "This will be the last time the captain will do any flogging aboard this ship." Comstock, ringleader in the mutiny, probably overheard this and believed the time for action had come. He had secretly mentioned to William Lay earlier in the voyage that he figured the crew ought to take the ship over; he didn't like the officers, he declared.

About sunset the day of the flogging, Comstock was ordered to splice the main sheet. As he was engaged in this task, he said to some of the boat's crew from the *Lyra*, who were aboard waiting for Capt. Joy to come up from the cabin, "Boys, that is a fine red sunset. Do you know that some folks who see the sun go down never see it rise again?"

Gilbert Smith was in charge of the first watch. At 8:00 p.m., Captain Worth came on deck and had two reefs taken in the topsails; at 9:00, he went below, leaving Smith with orders to keep the ship by the wind until midnight and to set a light for the *Lyra* when he tacked. At ten o'clock Samuel Comstock came on deck and Smith passed the captain's orders along to him and went below. A thick mist covered the ship; through it the helmsman heard subdued voices coming from persons in the waist. Suddenly Comstock stood beside him with orders: "Keep the ship a good full. Why do you have all the headsails shaking? Mind what I tell you. Keep her off two points. Now keep her there or you'll pay for it." Comstock went forward and the ship became ominously silent.

Suddenly a hideous screech came from the cabin followed by the noise of desperate scuffle and a thud. The light in the cabin went out. Comstock came rushing wildly to the binnacle light. His shirt was torn from his back and his face, arms and breast were covered with blood. He hurriedly lighted a lantern and went back into the cabin. He had killed Captain Worth with an axe and was going back below to complete his murderous plans.

Payne had attempted to kill Chief Mate Beetle with a boarding knife but had missed piercing his body. As Comstock entered the cabin, Beetle leaped for his throat and, fighting frantically, would have choked him to death had not Payne handed Comstock a hatchet. Comstock swung the hatchet and the mate fell to the cabin floor with a crushed skull. One of the mutineers had locked Second Mate Lumbard and Third Mate Fisher in their stateroom. Comstock now attacked these two officers. Lumbard was horribly bayoneted and Fisher shot through the head.

In the original plan, each of the mutineers was to kill an officer but in his insane frenzy Comstock alone killed them all. It was then that he came up on deck, called the crew aft, and

took possession of the ship, as told by Gilbert Smith in his report to Consul Hogan.

Among the men recruited at Oahu was a Negro, William Humphries. The day after the mutiny, he and Silas Payne were with Comstock in the cabin. Payne was now acting as chief mate and Humphries as steward. Comstock and Payne were examining charts while Humphries sat idly on a large sea chest that had belonged to Captain Worth. The captain's belongings had been emptied overboard and the chest was being used for arms. Comstock was talking: "Payne, we'll keep this course for a spell until I take an observation." Payne answered: "We'll strike the Marshalls somewhere. Let's get on deck. This cabin smells stuffy."

As the men started up the companionway, Comstock spoke to Humphries: "Steward, I want you to stay below and see that none of the men get to snooping. I intend to keep the arms well guarded. Something unfavorable could happen if the crew got hold of a brace of pistols. I'll send you a relief in an hour."

Comstock and Payne had barely reached the deck when Humphries lifted the cover of the great chest and took out a horse pistol. He found powder and shot and began loading the weapon when he heard the voice of Comstock: "Humphries, what are you about there — who gave you permission to get into that chest? Have you got a key?" Comstock had come back unexpectedly into the cabin and Humphries had not heard him.

"No, I ain't got no key. I just lifted the cover."

"That don't answer why you've got a gun and loading it."

"It's this way, Mr. Comstock. I've heard something very strange and I am going to get ready for it."

"Heard what? Come, out with it, or I'll give you the treatment I gave the officers."

Nervously Humphries continued: "I've heard something and I'm afraid of my life."

"You've heard nothing." Comstock lifted his hand to grab the pistol, intending to use the butt to strike Humphries, who then spoke anxiously, "I've heard that Gilbert Smith and Peter Kidder are making up a party to attack the cabin and get possession of the arms and shoot us mutineers. That's what I've heard."

Comstock demanded the gun that Humphries held and said, "I'll call the ship's company together and we'll hold a council to determine the facts. I think you're planning an attack yourself. I haven't been sure of you from the beginning."

The crew was immediately called aft again. At a perfunctory trial, both Smith and Kidder denied any part in a plan to take the ship away from the mutineers and Humphries was found guilty of loading firearms for the purpose of killing Comstock and Payne.

Comstock, acting as self-appointed judge, pronounced the sentence. "William Humphries, you are sentenced to be hanged by the neck to the stun'sail boom, rigged out eight feet upon the foreyard. There you shall hang until you are dead." He then addressed Payne, who stood near him: "Have the watch set up this rigging at once."

Some of the crew rigged out the studdingsail boom and passed a rope over it. Humphries was seated on the rail with a noose tightened about his neck and a large cap tied over his head.

"All hands, and I mean every man of you, will have a part in this. Take a hold of this rope. I'll stand by the ship's bell. Now, when I strike this bell, every one of you run aft until he swings clear and hangs overboard."

Comstock turned toward Humphries saying, "I have a 14-second glass here. You have 14 seconds left to live, speak if you have anything to say."

The doomed man began huskily: "Little did I think when I was a boy I would come to this, I . . ."

The rest was stifled for the loud clang of the bell sent the crew off with a start, and Humphries was jerked upward 20 feet from where he sat. His neck was broken instantly. The men held him swinging aloft for a few minutes and then Payne drew his sheath knife and cut the rope as high as he could reach from the deck. The body plummeted into the sea but the rope caught in the fore shrouds and the ship towed the body along until a great iron hook weighing 200 pounds was lashed to the rope and hove overboard; it splashed down alongside the vessel and, freeing the rope, carried it and the hanged man to the bottom.

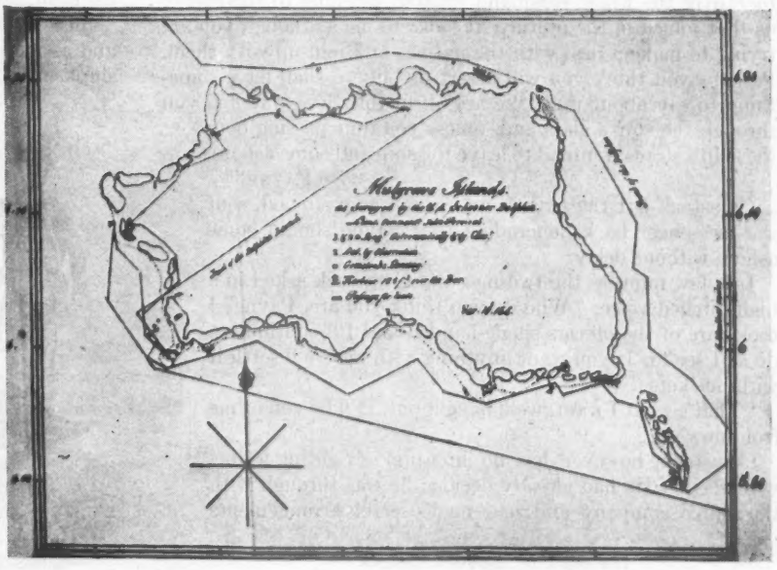
The *Globe* sailed on, heading westerly.

Ten days after the execution, the first glimpses of the Gilbert and Marshall Islands were reported in the log book as follows: "February 7th. These twenty-four hours commenced with thick, squally weather. Middle part clear with fine weather. Hove to at 2:00 a.m. and at 6:00 made sail and steered W by S. At half past eight, made an island ahead, one of the Kingsmill group. Stood in with the land and received a number of canoes alongside, the natives, however, having nothing to sell us but a few beads of their own manufacture. We saw some coconut and other trees upon the shore and discovered many of the natives and some dogs upon the beach. The principal food of these islanders is a kind of breadfruit, which they pound very fine and mix with fish.

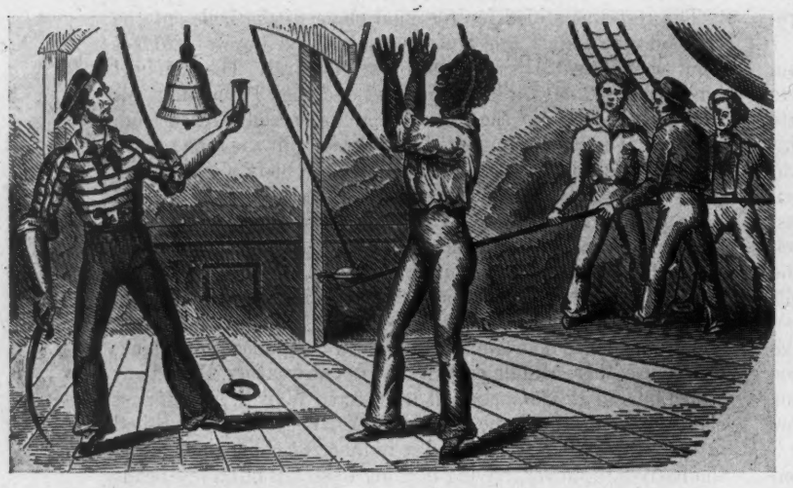
"February 8th. Commences squally with fresh breezes from the northward. Took a departure from Kingsmill Island, one of the group of that name; in 1° 27′ N, 175° 14′ E. In the morning, passed through the channel between Marshall and Gilbert Islands; luffed-to and dispatched a boat to Marshall's Island, but did not land, as the natives appeared hostile.

"February 11th. Commenced with strong breezes from the northward. At half past meridian made the land, bearing ENE, four leagues ahead. Stood in and received a number of canoes alongside. Sent a boat on shore and brought off a number of women, a large quantity of coconuts, and some fish. Stood offshore most of the night, and February 12th, in the morning stood inshore again and landed the women. We then stood alongshore looking out for an anchorage and reconnoitering the country in the hope of finding some spot suitable for cultivation.

"February 13th. We anchored within five rods of the shore on a coral rock bottom, in seven fathoms. The ship was moored with a kedge astern, sails furled and, under the command of Comstock, preparations were made to take ashore upon rafts everything aboard ship. We took ashore the following stores: one main sail, one fore sail, one mizzen topsail, one spanker, one driver, one main top gallantsail, two lower studding sails, two royals, two top mast studding sails, one mizzen staysail, two mizzen top gallant sails, one flying jib (thrown overboard because a little torn) three boatsails, three or four casks of bread, eight or ten barrels of flour, forty barrels of beef and pork, three casks of molasses, one and one half barrels of sugar, one barrel



The survey chart of the Mulgrave Islands which was prepared by the officers of the "Dolphin"



The execution of Humphries

of dried apples, one cask of vinegar, two casks of rum, one or two barrels of domestic coffee, one keg of West India coffee, one and one half chests of tea, one barrel of pickles, one barrel of cranberries, one box of chocolate, one cask of tow-lines, three or more coils of cordage, one coil of rattling, one coil of lance warp, ten or fifteen balls of spun yarn, one coil of one stream cable, one larboard bower anchor, all our spare yards, every chest of clothing, most of the ship's tools and instruments. The ship was nearly unrigged."

During the landing operations, Payne had charge of a part of the crew aboard the ship and Comstock supervised the land crew.

The raft had made several trips to and from the ship when one of the men ashore called out that he saw natives among the low bushes a quarter of a mile inland. Two or three spears were darted but did no one any harm. Comstock raised his hand in a friendly gesture and held high above his head some brightly colored cloth that had come ashore in the casks.

The natives came nearer and, after some gesticulating, offered some island fruit they had brought with them in exchange for the cloth. Comstock began giving them a number of the ship's articles and also clothing from the men's chests. While he was busy with the natives, a message was given him by a sailor who had just come ashore on a raft load of the ship's stores.

Comstock paused to read the note. "I do not like the way you are giving away things to these natives. A few trinkets is all right to make friends but you are carrying this too far, giving these blacks stuff that does not belong to you. You know I was not favorable to landing everything here before we made a further search among the islands. And I did not like the way you took over the whole command without listening to the rest of us that joined in the mutiny. It looks to me as though you are trying to make a deal with the natives and join up with them. Perhaps you think you will desert us but we shall have something to say about that. We are all in this. I've watched you through the ship's glass and, unless you quit passing over the ship's stores, I intend to leave the ship and come ashore.

PAYNE."

Comstock left the natives and, in an angry mood, sent the messenger back demanding that Payne should come ashore without delay.

In a few minutes the two met and Comstock asked in a high-pitched voice: "Who do you think you are, Payne? I took care of the officers single-handed and I'll continue to do as I see fit. If you want anything with me we'll settle it with muskets."

"That's what I want, we'll have it out. It'll be you or me from now on."

Comstock, however, had no intention of fighting a duel with Payne. He had already decided he was through with the ship's company and had made secret arrangements while trading to go with the natives to their village to live with them.

"All right, Payne," he said, "I don't hold any grudge. You can have the ship. I'll shift for myself. Let me have the captain's cutlass and I'll go inland." Payne agreed to this request and Comstock left the camp and disappeared in the inland thicket. Payne took over the leadership and went directly to the ship where he addressed the crew: "Comstock is out of this but I do not trust him. He may persuade the natives to attack and kill us all. Tonight we are to have a watch ashore and on the ship as well. You are to shoot anyone who is moving about and cannot give an account of himself. I'll stay ashore and Gilbert Smith will remain with the ship."

With these instructions given to guard against any native uprising that might be engineered by Comstock, Payne chose half the crew and was taken ashore in one of the whaleboats. He and the men not on watch made ready to spend the night in a substantial tent that had been fashioned out of the ship's spare mainsail the first day ashore.

There was no alarm given during the night but early the next morning, when the sun had scarcely risen out of the sea, one of the lookouts reported that he thought he saw someone approaching the encampment from the direction taken by the natives the night before. The light in the bushy growth made the form indistinct and he could not tell whether the objects he saw were men or animals. Payne and his companions hurriedly took guns and, spreading themselves several feet apart, stood intently looking for further motion in the bushes. Payne shouted: "Show yourselves at once, or I shall order my men to shoot."

There was no answer and the men brought their guns to their shoulders. Before they fired, however, Comstock rushed out of the dense thicket into full view crying: "Don't shoot. Don't shoot me. I don't intend to hurt anybody." He carried his cutlass unsheathed and waved it in the air as he talked. "Listen, Payne —."

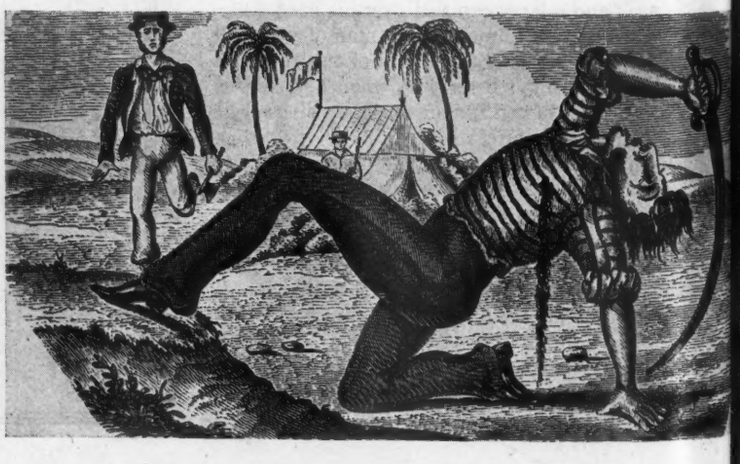
"Oh, it's you," Payne interrupted. "I thought as much. Trying to sneak up on us. We've had enough of you. Where are your Indians? Probably in an ambush waiting for you to lead us on. You've spilt enough blood. Let him have it, men, he'll have us all in the hands of these natives and they are bloody cannibals. Fire, I say."

The guns roared simultaneously and Comstock sagged to his knees and then, face against the ground, Payne rushed to him and, drawing a boat hatchet from his belt, nearly decapitated the murderous mutineer. His body showed fatal gunshot wounds in his breast and skull.

Hussey and Lay state in a report: "Thus ended the life of perhaps as cruel, bloodthirsty and vindictive a man as ever lived. Only twenty-two days had elapsed after the perpetration of the massacre on board the ship when, with all his sins upon his head, he was hurried into eternity."

Silas Payne now attempted to reorganize the ship's company and assigned Gilbert Smith and six men to act as permanent shipkeepers. They were to stay aboard the vessel until he de-

(Continued on page 92)



The death of Samuel Comstock

FEBRUARY, 1945

A SEAGOING TESTING LABORATORY

Part IV — Wiring, Plumbing, Hull Forms and Rig

By GILBERT DUNHAM,
Chief Boatswain, USCGR

"An over all length of 80 feet or thereabouts seems to be the ideal length for our patrol assignments. A vessel of that size combines several desirable qualities which fit in very well for such service."

NATURALLY enough, at a Patrol Base where sailing auxiliaries predominate and where each one of them is at sea for long periods, there is certain to be endless discussion by their crews regarding the many phases of sailing. Arguments (sometimes pretty violent) over the merits and demerits of different rigs and hull forms are everyday food and drink. When they're not bemoaning their lot or discussing women, the conversation usually turns to boats; not only those of this offshore patrol but what they want for themselves after the war. A favorite saying among them is: "When the war is over, I'm going to sling a pair of oars over my shoulder and then I'm going to walk inland until somebody says 'what are those?' — and brother, that's where my home is going to be!" But I notice that, when they are on leave during the summer months, quite a number of them seem to find time for a bit of racing or a short cruise.

Keeping the sea in a small boat during winter or in bad weather isn't much fun, yet it's certainly true that the experiences we enjoy talking about most are those which were the toughest and most unpleasant to live through. Once the love of boats and sailing has gotten into the blood, it's there for keeps. Yet there is no reason for taking more of a beating than is necessary or to be needlessly miserable. There's one thing about which every man in this fleet will agree and that is that, next to the all-important quality of seaworthiness in a vessel, they feel that a maximum degree of comfort is highly desirable. Strange to say, that statement doesn't necessarily mean that a slow, easy hull motion is all they are thinking of. There are a lot of other things, little things sometimes, which spell comfort. Easy motion at sea is a fine quality but often, to achieve it, you must sacrifice a certain amount of ability in a boat — an ability to carry sail and to hold on when you're being driven toward a lee shore. Yet the little things of which I am speaking play a very important rôle.

Here are a few of them that have given us a great deal of trouble: electric wiring which has been so poorly installed that shorting occurs frequently in wet going; pumps of various kinds which fail to function because of wear or clogging and which are of a type difficult to repair or clean out at sea; leaks in decks and around hatches; ice boxes which were never designed to be taken to sea and electric refrigerators that have given constant trouble. There are other things of a slightly different nature which contribute tremendously to comfort at sea, such as the proper allotment of space to lockers of various kinds (and their location) and the arrangement of galleys, heads and cabin interiors.

Every boat in the fleet has been re-wired to some extent and quite a few have been completely re-wired. Hence I am of the belief that if you can stand the expense it's hard to beat waterproof, armored cable and watertight junction boxes. If expense is the determining factor, buy the best wire, switches and fixtures you can and run the wire neatly and honestly where you can see it and get at it. Don't cover it over with nice little wooden troughs or conduits. It's certain to get wet once in a while but, if it is located high enough and pretty much out in the clear, there's a chance for it to dry. If the wire is covered over, it will get just as wet and stay wet for a long time.

Most of the galley sink drain pumps have failed at one time or another and some of them should never have been used for the purpose. We have found the Navy type bilge pump to be about the best for this use. It has numerous advantages. It can be kept in repair for years by anyone with an average amount of mechanical ability. The capacity is good and it will pass such things as orange seeds and food particles which somehow find their way into the drain. It is rather bulky and is somewhat hard to pump but these negatives are far outweighed by the good qualities. But, in common with most pumps, it leaks a bit through the packing gland. There is only one way I can think of to correct this and it's something that could be done by the manufacturers quite easily; namely, a matter of re-designing the upper casting of the pump to form a moat around the packing gland. Water leaking into this moat can be carried off and into the bilge through ordinary copper tubing. This same system could be used to advantage on toilet pumps.

While on the subject of toilets, I must confess that in my opinion the spring foot valve used so exclusively on the more expensive models is more trouble than it is worth, while the hand type intake valve supplied with the cheaper toilets is satisfactory. Any bit of foreign matter of any size which happens to lodge under the spring type valve will prevent it from closing all the way. If the top of the bowl happens to be on or below the water line, it is entirely possible that you might come down to the yacht club some fine Saturday morning and see nothing but the top of your mast sticking up above the water. You might say "why not simply install a hand valve in addition to the spring foot valve?" That can be done but it doesn't really correct the evil. You are too apt to rely on the spring valve and forget the other. For that matter, your boat is already equipped with a seacock. Do you always close it when you go ashore?

Owing to the nature of work the patrol boats have been called upon to perform, we have installed extra bilge pumps in most of them. Because these boats have had to work in winter, and to avoid the freezing of water in the pumps, we have placed the extra pumps in the bilges or somewhere below decks whenever space permitted. The new installations have all been of the Edson diaphragm type and have proved most satisfactory. They handle a large volume of water and are extremely easy to work.

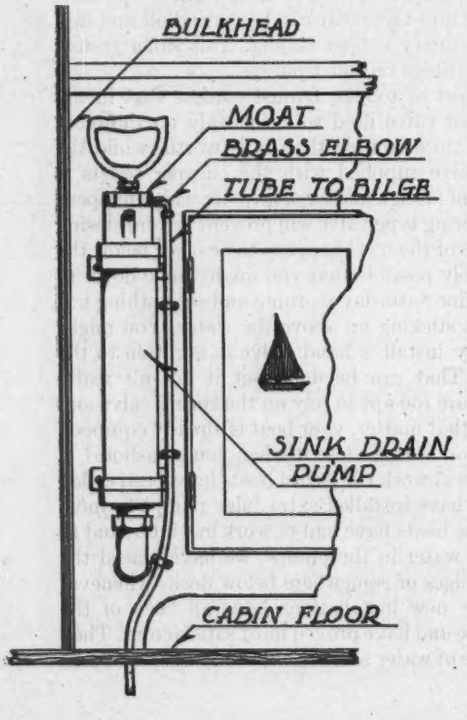
The only attention they require is replacement of the rubber diaphragm occasionally, and for that reason it is a good idea to carry a few spares aboard. For smaller boats where space is limited, I think the "Navy" type pump is pretty hard to beat but there are lots of other outfits on the market and some of them are undoubtedly excellent. However, the pumps which rely for their efficiency chiefly on a precision fit between metal working parts begin to lose that same efficiency as soon as any appreciable wear takes place. Then the pump must be repaired by someone who really knows what he's doing.

Some of the boats are equipped with ice boxes which are good for about three days in hot summer weather, while other boxes of the same ice capacity will hold it for a week. The best ones are of the top opening variety and are carefully put together in addition to being well insulated. As a result of our experience, I feel that all boxes should be designed and constructed so that they can be easily removed and taken apart. Also, there should always be plenty of space all around them for the circulation of air. If they are installed against the side of the boat, there should always be an air space between the box and the ceiling.

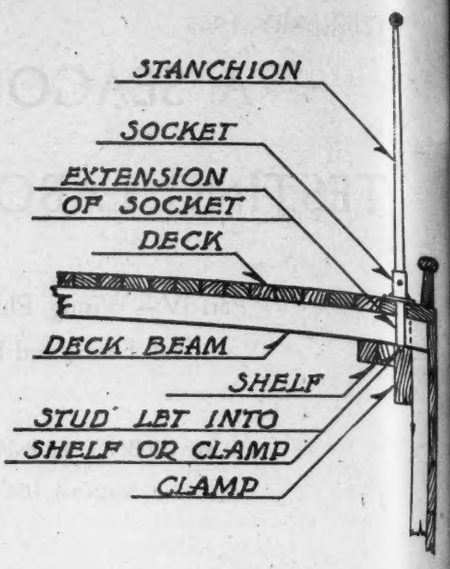
Electric refrigerators are fine to have on board, but the motion of sea and the pounding or resulting vibration doesn't seem to help them much. We have a few of them which have been kept in operation only by dint of constant attention and repairing. Under the more normal conditions of average summer cruising they no doubt cause much less trouble and I'm sure the manufacturers have learned a great deal about marine installations during the past few years. Hence we may hope to have far more satisfactory equipment after the war and units which can be used in moderate sized boats with a minimum drain on the batteries.

Let me get back for a bit to the subject of hull forms and types of rig, especially in regard to the way they have compared to each other under such extremely trying and severe conditions of weather. It is a rather difficult subject to write about for several reasons, principally because there are — and always will be — many conflicting opinions on the subject. A man's ideas about rigs and hulls are usually influenced by his own particular experience and the types he happens to know best. He is almost bound to be prejudiced, in one way or another. Fortunately, my position has been one which has allowed me to get more or less of a perspective of the fleet's operation and performance as a whole and where it has been possible to hear not only most of the opinions and ideas of the various skippers and crew members, but where there has been an opportunity to analyze the pros and cons of the ideas discussed.

Back in the summer of 1942, when this fleet was being formed



"Most of the galley sink drain pumps have failed at one time or another, and we have found the Navy type bilge pump to be about the best for this use. It can be kept in repair for years by anyone with an average amount of mechanical ability. The capacity is good and it will pass such things as orange seeds and food particles which somehow find their way into the drain."



"Life lines and stanchions have been pretty much of a headache. Nine times out of ten the stanchions have been insecurely fashioned or, rather, the sockets have been improperly secured. On any boat having a low rail, I believe the sockets should go right on through the deck or covering board and be locked into the shelf below."

and organized, many fears were expressed by yachtsmen (mostly the old timers) that the modern tall rigs would be unsuitable for the work intended. The contentions were that such high masts might be unable to stand up during severe winter gales or that their motion under such conditions would transmit too much stress to the hulls; in any event, that sail slides and tracks would ice up so badly as to be a hazard. I'm glad to say that these fears have proved groundless and the modern rig has turned out to be every bit as sturdy as the old and is even considerably more efficient in some respects. Modern standing rigging has given far less trouble than the old. Any number of wire splices have failed but to my knowledge no Tru-loc fitting has ever pulled out. Stainless steel wire of 1 × 19 type, when used with fittings, has stood up wonderfully but in a few cases, where it has been spliced around thimbles, it has broken at the thimble. I mention Tru-loc fittings in particular because our experience has been chiefly with them but there are also a few socket type fittings used on quite large sized wire that have been equally satisfactory. They are a bit on the bulky side and, while not quite as neat as the Tru-locs, are perfectly trustworthy *if* properly attached to the wire. Mast tangs have failed in a few instances but only where they were designed with an inadequate safety factor. For the most part they have been good. The combination of 1 × 19 stainless wire with terminal fittings and proper mast tangs certainly is ideal and well worth the expense but the wire (that is, 1 × 19) should, in my opinion, never be spliced or bent around a sheave.

The use of wire halliards is surely desirable with jib-headed sails but they present a problem, the wire-to-rope tail splice. These are neat and will hold well if properly made — and that's just the trouble. There aren't many yachtsmen who know how to make one and, anyway, it's a long, tedious job. I think their use for halliards or sheets should be avoided wherever possible, but where they are definitely called for you ought always to carry a spare, already made up. Halliard reel winches do away with the use of these splices but there again you have a piece of equipment on board which may fail, perhaps at a time when quick action is essential to safety.

Life lines and stanchions have been pretty much of a headache. Nine times out of ten the stanchions have been insecurely fastened at the deck or, rather, the sockets have been improperly secured. On any boat having a low rail I believe the sockets should go right on through the deck or covering board and be locked into the shelf below. At least, that is one good way to do it. If the boat has a sufficiently high rail or bulwark, the stanchion can be secured at the rail cap but to attempt to hold the ordinary socket to a deck with three or four wood screws is just about impossible unless the stanchion has some further support. Life lines of 6 × 7 stainless steel seem to hold up well but should be served or covered, at least at the point of contact with the stanchion.

For the greater part of the past two years we have had 28

(Continued on page 95)

PHILIPPINE INVASION

Official U. S. Navy Photos

Motor torpedo boats played a decisive role in the now-famous second battle of the Philippine Sea. Top, Japanese survivors from ships of their fleet which were sunk in Surigao Strait, clinging to debris, approach a PT for rescue. Note the crew standing by with Tommy guns. Above (left and right), friendly Filipinos come alongside to offer an enthusiastic welcome. Left, two PTs serve as anti-aircraft ships during a Japanese air attack

BRIGHT LIGHTS

Why Not Make the Most of Your Lighting System

By H. A. MURRAY

A GOOD lighting system in a boat is a great asset. In a cruising boat especially, good lights radiate a cheerful, friendly atmosphere just as they do ashore. Yet there are many lighting systems in boats which are a bitter disappointment to their owners all because a few details were overlooked at the time of building. Actually, these unsatisfactory lighting systems could have been perfect at no greater cost if the builder or naval architect had had the data given below. It was my own blundering and a poor job of installing one boat's electrical system which rudely jolted me into compiling the following data.

Electric lights appeal to me more than do kerosene lamps. When an anchor starts dragging in the middle of the night you can be sure of grabbing the right pair of pants if you have electric lights. The timid guest appreciates electric lights rather than borrowing the cabin lamp when making a visit to the "head." Kerosene lamps have been and still are the old standby with some boatmen. Frankly, I think their day is passing, especially when good electric lights can be installed. Kerosene lamps, when lighted in a tightly closed cabin, give some persons a headache. Furthermore, the chance of sooting up nice white woodwork doesn't appeal to me either. Fire hazard is another objection.

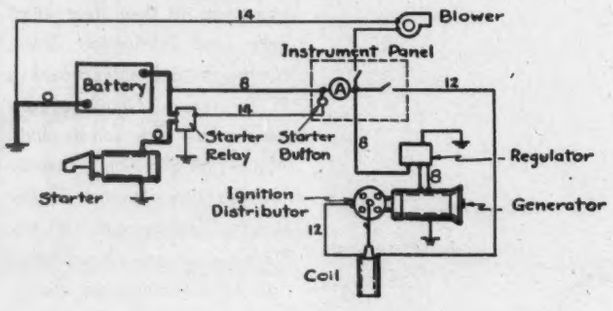
Just what seems to be wrong with some electric systems? The most chronic complaint seems to be dim lights. Some owners think they need a 32-volt system instead of a 6-volt system for good lights. Making such a change usually remedies the trouble but adds greatly to the cost. I think these owners would be interested if they could obtain the same results with a 6-volt system at no appreciable increase in cost.

Some persons have to learn by experience. Well, that happens to me all too frequently. I shall never forget my disappointment after wiring a speed boat to find the horn would only grunt feebly. It was downright carelessness on my part in selecting wires which were too small for the job. Experiences such as this one convinced me that you cannot use any old wire size (usually four gauges too small) and expect results any more than you can guess at the size of shrouds and hope to keep the mast in her.

For my next boat, the wire sizes were calculated. To my surprise, the cabin lights are as bright as with 110-volt circuit ashore even though using only a 6-volt circuit.

Choice of Circuit Voltages

Except for larger yachts most boats have a choice of 6-, 12- or 32-volt circuits for cabin lighting. For the sake of simplicity, I prefer the same voltage as is used by the engine. Only one set of batteries and one generator will be needed, which makes for simplicity. I have seen as many as three different circuit voltages in one boat with separate batteries and generator for each circuit — what a nightmare to maintain!



Rosenfeld

A good example of the proper distribution of lighting fixtures. Note the fluorescent lamp at the left of the mirror in the forward cabin

I like the 6-volt circuit for the average boat because all the accessories are low priced and available almost anywhere. Batteries, generators, regulators, cutouts, relays and lamps can be obtained at low prices wherever automotive supplies are stocked. The 6-volt circuit can be used advantageously on the average boat up to 40 or 45 feet length over all. For larger craft, or where very heavy electrical loads must be carried, it is probably better to use either a 12- or a 32-volt system.

Avoid Excessive Voltage Drop

Voltage drop is the worst enemy of any electrical circuit. It may be traced to undersized wires or poor connections, but is caused chiefly by small wires. Voltage drop is just what the name implies. If there are 6 volts at the battery terminals and only 5 volts at the lamp, the drop obviously is 1 volt or 17 per cent. The Packard Electric Division, G.M.C., one of the principal wire manufacturers, claims that even a 10 per cent drop in voltage causes a 30 per cent drop in candle power. For best results in any lighting circuit, they recommend that the voltage drop should never exceed 5 per cent. This is the secret behind good lights.

Every conductor offers some resistance to the flow of an electrical current. Some offer more resistance than others, depending upon their size, material, etc. For example, if two separate circuits have the same initial voltage but are of different resistance, the one with the greater resistance will deliver less current. The same is true of two water pipes with identical initial pressures but different resistance. Obviously, the water flow in a small pipe with high resistance will be less than in a larger one. It follows that the pressure drop with the small pipe is also greater. The same thing applies to an electrical circuit: small wires of higher resistance are responsible for greater voltage drop and less current. Without getting technical, it is evident that a larger wire, with less resistance or friction, delivers more of the so-called "goods" at the other end than a small wire. It's what you've got at the light fixture and not at the battery which counts. The greater the pressure or number of volts at the lamp, the greater will be the amount of electricity passing through the lamp and the brighter the light will be.

Left, a typical engine circuit

Resistance of Stranded Copper Wire			
Gauge	Stranding	Circular Mil Area	Ohms per 1000 feet
18	16/30	1610	6.45
16	19/29	2410	4.31
14	19/27	3830	2.70
12	19/25	6100	1.70
10	19/23	9680	1.07
8	19/21	15400	.68
6	37/21	30000	.35
4	61/22	39150	.27

Table II

One point which most people forget about in a 6-volt system is the fact that it is a low pressure system carrying more current with less voltage drop than is permitted in a 12- or 32-volt circuit. Large size conductors or wires are absolutely essential. If the right wire sizes are picked out, a 6-volt system can function just as well as a 32-volt system. Wires which may be adequate in a 32- or even a 12-volt circuit can easily be too small for a 6-volt circuit.

To save boatbuilders and naval architects the tedious work of calculating wire sizes, a simple table has been worked out by Mr. Hopkins, of the Packard Electric Company.

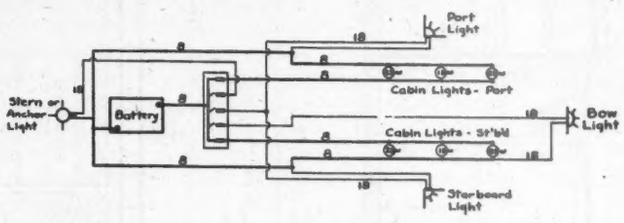
Use of Wire Gauge Chart

To select the proper wire size for any 6-volt circuit, simply determine the maximum current and refer to *Table I* where you can read across from the current in the first column to the column corresponding to the length of the circuit and pick out the wire gauge required. As an example, suppose a given circuit has a 60 watt lamp 20 feet from the battery. A 60 watt, 6-volt lamp consumes 10 amperes $\left(\frac{\text{watts}}{\text{volts}} = \text{amperes}\right)$. Reading across the 10 amperes line to the 20 foot column shows that an 8 gauge wire is required. The same table can be used with a 12-volt circuit by merely dividing the actual current by 4 and reading the gauge as above.

Tables I and *II* apply to the conventional stranded cable, rubber covered with a lacquered braid on the outside. The reasons why stranded cables are universally used in boats, automobiles and aircraft are ease of bending (flexibility) and resistance to breaking under vibration. The conventional stranded cable is satisfactory for all inside boat wiring. It should not be run through the bilge nor on deck where exposed to sun and salt spray. Lead covered cable is better for these exceptions. At the same time, I believe lead covered cables are entirely unnecessary for general wiring and probably not needed at all if the circuits are properly laid out.

Other Pointers on Wiring

Selecting large enough wires to avoid excessive voltage drop is important although not the whole story. Terminals and connections, if improperly made, can be responsible for high voltage drop, too. The ends of all wires should have a soldered terminal, soldered with a rosin flux and never an acid flux, to prevent corrosion. All connections must be made by bolting the terminal ends together. If these terminals are clean and firmly clamped together with a brass machine screw, the chances of loose or bad connections are quite remote. Wherever a wire branches out into two or more paths, install a junction block. This can be made with a small piece of Bakelite or Masonite with machine screws serving as binding posts for the terminals.



A typical lighting circuit

Never wind a wire around a binding post and expect a good connection. The contact area is too small and voltage drop is invariably excessive.

Fuses are recommended on all lighting or horn circuits. Fuses are not good practice on engine ignition or generator circuits. I have had vibration crack the fuse metal and cut out an engine. Embarrassing? Yes, very.

There was an old motto: "Keep your powder dry." The same applies to electric wiring if you want to save yourself trouble. Running wires along a clamp or stringer is often a good idea. Never let them run through the bilge. In aircraft, wires are loosely bundled together and held in place with small clips.

Batteries and Generators

Batteries should be placed as close to the starter as possible, making appropriate allowances for accessibility and ventilation. Short starter cables mean better starter performance due to lower voltage drop. Don't attempt to run a long cable to a starter button and back, but use a starter relay switch. The latter is probably cheaper than the cost of long cable and certainly lots neater. Starter cables should be No. 0 gauge. Don't forget that starters on gasoline engines consume up to 175 amperes and 350 amperes on diesels.

The Universal Motor Company offers some good advice on boat wiring in its engine manual, viz.:

"The wiring of boats rests entirely with the boatbuilder. We take exception in many cases to the use of wires that have insufficient carrying capacity.

"Efficient application of the starting motor torque can be made best when the starting motor cable is shortest. It is not unusual to find as much as 22 feet of undersized cable running from the battery amidships to the switch on the toeboard in the floor of a speed boat and back to the starting motor. Voltage losses in the cable reduce the effectiveness of the starting motor to such an extent that it becomes inadequate.

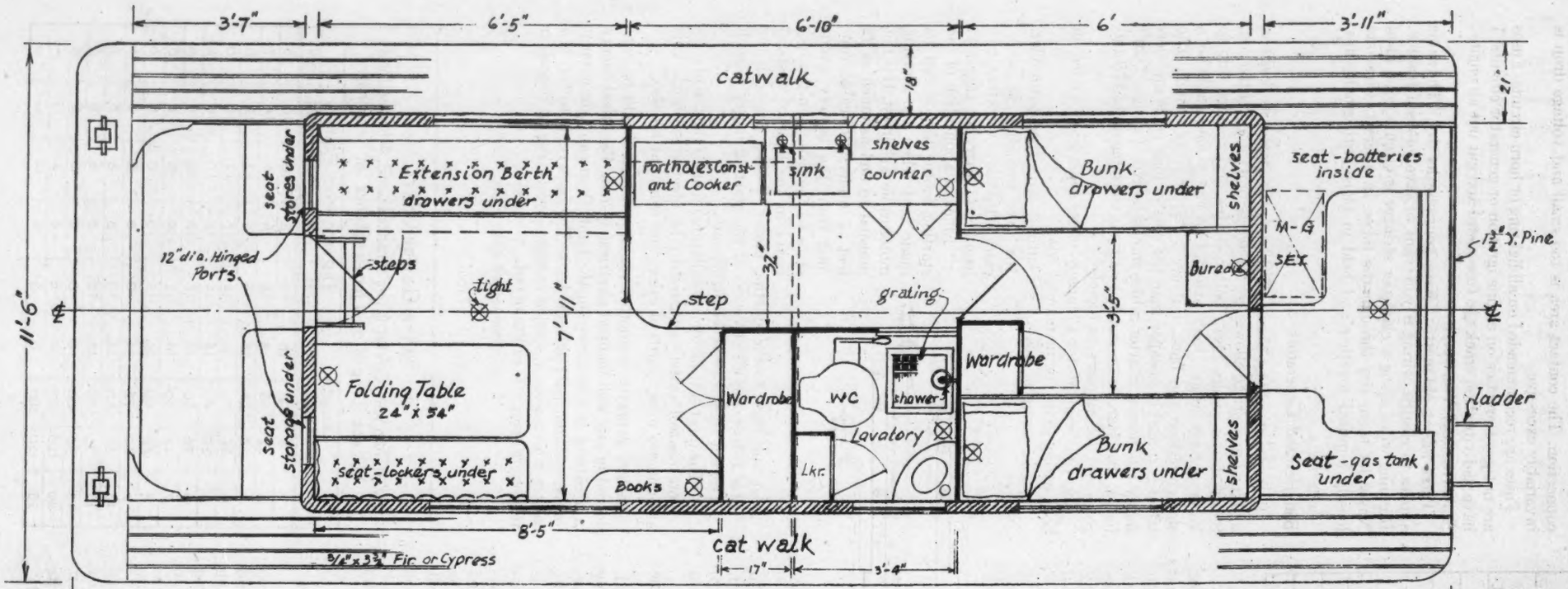
"The most satisfactory installation includes the use of a remote control switch actuated by an electric solenoid. This eliminates many yards of cable, and cable rattles also."

Battery capacity is another question which should be considered in any well planned electrical system. Electrical energy in a battery is like money in the bank. You can't draw on it forever without putting some back. The battery, however, is a banker who makes a service charge — you have to deposit a little more than you can take out.

(*Continued on page 98*)

Table I

Wire Gauge Chart 6 Volt Two Wire Circuit (using stranded wire). Allowing for a Voltage Drop of 5% & for Resistance at Terminals								
Amperes	Watts	Candle Power	Distance from Battery					
			5 ft.	10ft.	15ft.	20ft.	25ft.	30ft.
1	6	8	18	18	18	18	16	16
2	12	15	18	18	16	14	14	12
3	18	25	18	16	14	12	12	10
4	24	35	18	14	12	12	10	10
5	30	40	16	14	12	10	10	8
6	36	50	16	12	10	10	8	8
7	42	50+	14	12	10	8	8	8
8	48	60+	14	12	10	8	8	6
9	54	70	14	10	8	8	6	6
10	60	80	14	10	8	8	6	6
12	72	100	12	10	8	6	6	6
15	90	100+	12	8	6	6	6	4
20	120	150+	10	6	6	4	—	—
25	150	200	8	6	4	—	—	—


3'-7"
6'-5"
6'-10"
6'
3'-11"
catwalk
18"
21"
11'-6"
seat stores under
Extension Berth drawers under
Portholes Constant Cooker
sink
shelves
counter
Bunk drawers under
shelves
seat - batteries inside
M-G
SEX
Bureau
1½" Y. Pine
12" dia. Hinged Ports
steps
light
step
32"
7'-11"
grating
3'5"
Folding Table 24" x 54"
seat storage under
Wardrobe
WC
shower
Wardrobe
ladder
Lavatory
Lkr.
Bunk drawers under
shelves
Seat - gas tank under
seat - lockers under
Books
8'-5"
cat walk
17"
3'-4"
¾" x 3¾" Fir or Cypress
-FLOOR PLAN-
Porthole's Smoke Jack
28'-9"
ceiling - ⅛" Masonite
light
Roof ¾" Fir Weldwood
studs - 2x2 Fir
sheathing - 15/32" Homasote
wood textured Homasote
lockers
lockers
shelves
6'-2"
EVINRUDE Lightfour
Mirror over bureau
6'-3"
seat
W. oak or Y. Pine
folding berth
counter
sink
stove
Ice Box
bureau
35 gal. water
storage
drawer
drawer
locker
drawer
drawer
seat
coal locker
LWL
130 gal. water
2"x3" Fir
1½" Cypress
2x4 Yellow Pine (2)
Pan under shower
-SECTION ON ℄-
0 1 2 3 4 5
SCALE

"ESCAPE"

Get Away From It All in a House Boat

By W. H. de FONTAINE

EVERY design, no matter how humble, should have behind it a certain philosophy — an ideal, if you will. The man who loves to run up obscure and uncharted creeks and inlets will look with no interest whatever at the long-legged cruising yacht which would be the first love of the fellow whose deepest urge was to get offshore and stay there; while the latter would cast a jaundiced eye on the shoal draft centerboarder that would be the choice of the explorer's heart. So it is with all sailors and their boats.

Here is the design of a man who has perhaps reached that age when comfort and headroom aboard ship begin to appeal to his fancy to the point where he is willing to forego, in part, the thrills that come from active sailing. The answer seemed to him to be a small, mobile houseboat, large enough so that he and his wife could live aboard comfortably for a couple of months or longer and could put up a pair of guests on occasion.

The mobility desired is not that of a true power boat but just enough so that the houseboat can be run out from the yard to her mooring in the spring, and be run up to the club float to take on water and other supplies as required. In the smooth water it is estimated that the Evinrude "Lightfour," which delivers almost 10 hp. at 4000 revolutions, will push her along satisfactorily. There are many advantages in the use of an outboard for this work. There is the low initial cost and the fact that no room is occupied in the cabin space. Another consideration is that there will be no possibility of engine odors getting into the boat. The fire hazard is also minimized, particularly if the fuel supply is kept outside the cabin. A utility boat for running errands would be needed to make life comfortable aboard a houseboat that anchors out, and the Evinrude could double in brass aboard the tender most of the time.

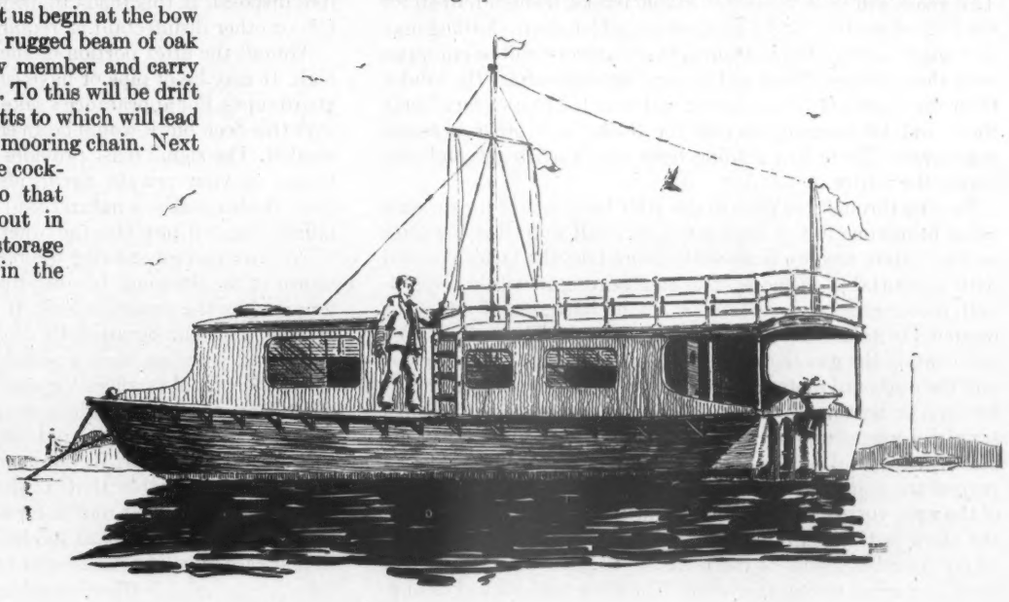
It is planned that an important part of the *tout ensemble* will be a sailing dinghy, her choice depending, perhaps, upon the most popular class sailed at the owner's club. Old racing men are a little like old fire horses; if there is a race or a fire they itch to get into action again.

Her general dimensions are: length over all, 28′ 9″; extreme beam over the catwalks, 11′ 6″; beam of hull, 8′ 0″; draft, 16″ to the bottom of the rubbing keels. There is 6′ 2″ minimum headroom throughout the cabin, which is ample for the designer but could easily be increased to suit a taller man. Headroom on the after deck is 5′ 11″. Let us begin at the bow and work aft. First there is a rugged beam of oak or yellow pine to act as a bow member and carry the pull of the mooring chain. To this will be drift bolted a pair of substantial bitts to which will lead a bridle shackled to the main mooring chain. Next comes the forward deck of the cockpit. This is large enough so that several persons can sit about in comfort. Two seats, with storage space under, are provided in the forward cockpit and between them a passageway leads to steps going down into the main cabin. Access to these steps will be through a companionway door and overhead slide, well built to keep out a driving rain; when the weather is bad, the rain and spray will beat against the forward side of the cabin house.

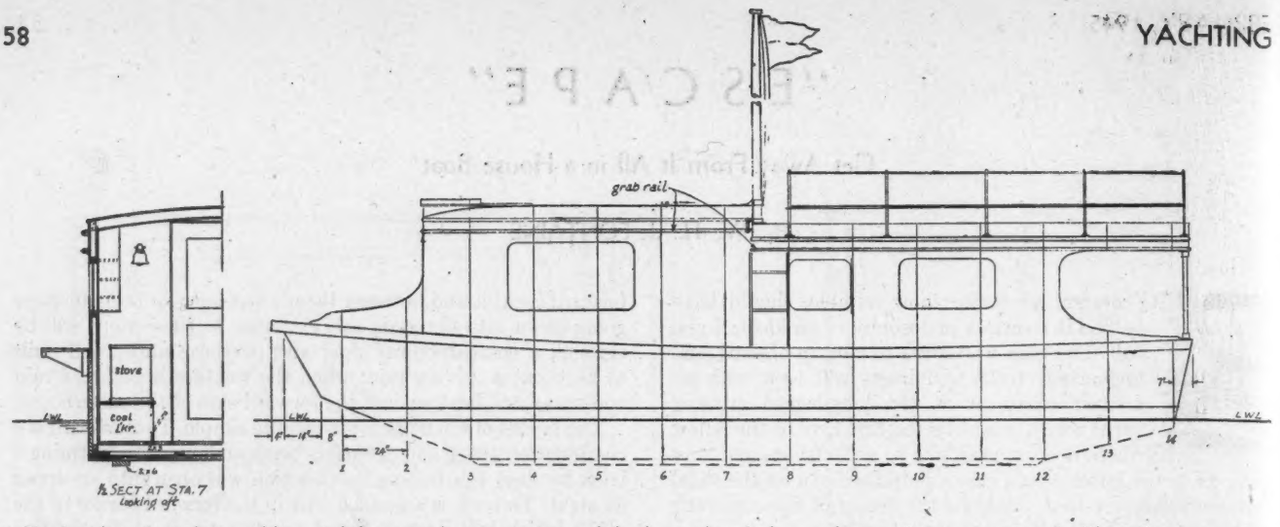
The layout of the main cabin is quite simple. To starboard is a combination settee and extension berth and over this (forming a back by day) is a folding berth which will open into an upper at night. To port, is a padded seat in the forward corner of the cabin which will provide space for two to sit at the folding dining table. The latter will jackknife against the forward bulkhead when not wanted, although it is probable that it will be found so useful that it will remain in position most of the time. Two persons can be seated on the starboard side of the table and one on the after side, making a total of five diners. When the table is folded, there will be ample room to set up a folding cot if some guest misses the last launch. Folding chairs will, of course, be used at the table. It is possible to buy really comfortable folding chairs nowadays, and they would be the kind to use.

As no home is complete without books, a small bookcase is in the after, port corner of the main cabin, while across the after end of the cabin is a hanging locker, or wardrobe, that is large enough to accommodate on coat hangers the necessary summer clothing of two persons. At the after end of the main cabin on the starboard side is a bulkhead that runs to the ceiling in the way of the bunks but changes to a partial bulkhead, waist high, almost to the center line of the boat. This bulkhead serves to screen off the galley space without preventing the free circulation of air; cool air when the ports and windows are opened and warm air when they are closed and the stove is generating its welcome heat on damp days.

There is an 8″ step down to the galley where the first object to meet the eye will be one of "Porthole Pete's" Constant Cookers. This is an extremely efficient cook stove which takes up a minimum of room. There is so little heat loss from this stove that it will not overheat the cabin in summer weather yet, with the oven door open, will provide ample heating capacity on damp days to keep the cabins dry and warm. Next aft comes the sink on the same level as the stove and shown with two pumps. One of these leads to the ship's fresh water tanks and one to the ice box drain tank (assuming that ice will be used). Under the sink is a large pan locker, and a coal locker is shown beneath the



By giving a little sheer to the line of the catwalk, by the use of contrasting colors for hull and cabin house and by the carefully proportioned windows, the designer has attempted to make this craft look less like a house and more like a boat



The break in the cabin roof line and the curved coamings around the forward and after cockpits aid in overcoming the "boxy" appearance

stove. The bottom part of the pan locker will be occupied by a combination ash and garbage pail made to fit the space and having a hinged lid.

Abaft of and level with the sink is a linoleum covered counter under which will be located the ice box. In the interests of freedom from shore, and of neatness, the ice box will be equipped with an Electrolux-type, kerosene burning, freezing unit, provided that one can be found to fit. Otherwise ice will be used and then the sink pump will be installed and the melted ice be used for dish washing. Along the starboard side of the galley will be shelf space for glasses and china as well as cupboards for dry groceries. The cupboards are over the stove and should have ½" holes bored in the bottoms to permit the rising heat to keep cereals, salt and sugar dry.

To port, opposite the galley, is the toilet room. This is equipped with the usual facilities such as toilet, basin and cabinets for toilet articles and linen and, in addition, there is a shower head arranged over a teak grating so that it will be possible to take a bath either standing on the grating or sitting on the lid of the toilet. A small hamper for soiled clothes and linen will be fitted beneath the basin. The interior of the toilet room will be sheathed in Marlite wall board in imitation of a vitreous (not tiled) surface. Corners will be finished with chrome-plated brass moldings. This material is waterproof and easy to keep clean and will virtually make a shower stall out of the room. The door to the lavatory will slide fore and aft and will also be surfaced with Marlite. Beneath the grating will be a shallow pan to catch the shower water. This pan will be equipped with an automatic, electric bilge pump that will empty the contents overboard.

Abaft the galley and lavatory comes the owner's stateroom. This room will have two comfortable bunks, a small bureau for the lady of the boat and a wardrobe in which shore clothing may be hung in safety. The bottom of this wardrobe will be equipped with shoe shelves. There will be large drawers under the bunks. Over the bureau will be a mirror and over the foot of each berth there will be hanging shelves for books and other personal possessions. There is a reading light over each berth and one beside the mirror.

Passing through the door in the after bulkhead of the owner's cabin brings one to the back porch, or shall we call it the after cockpit? Here are two seats with lifting lids, the latter covered with comfortable cushions. The starboard seat will house a 6-volt motor-generator set and a set of batteries of sufficient capacity to take care of all the boat's needs. The seat to port will contain the gasoline tank, storing the fuel for the generator and the outboard motor and also lubricating oil cans. There will be room under this seat for a tool box in which to keep the ship's supply of wrenches, hammers, pliers, etc. When under way, the after cockpit will be the engine room for here, clamped to the rugged transom, will be found the trusty Evinrude neatly out of the way, yet ever ready to go to work. Here also, hanging over the stern is the combination swimming and boarding ladder, while along both sides of the boat are the catwalks which also serve as perfect diving platforms. The after cockpit will doubtless prove a delightful place to sit on a quiet night and on hot, sunny days it should be popular as a refuge from the glare and the beating sunshine. It would take little ingenuity to arrange comfortable sleeping accommodations here for hot nights.

All electric circuits will be laid out in strict accordance with the information given in Austin Murray's article on page 54 of this issue of YACHTING, and there will be ample provisions for satisfactory illumination as well as outlets for electric fans and a small, hand vacuum cleaner. Windows will be of Tufflex plate glass and will be made to slide fore and aft like those in a Ford station wagon. All windows will be equipped with venetian blinds. In the forward bulkhead, there will be two 12" diameter hinged ports and both the outside doors will have fixed ports, for light. All openings will be fitted with screens, probably made of Nylon, Koroseal or another of the plastics, made to roll up like a shade.

The water supply will be 165 gallons in two tinned copper tanks. Thirty-five gallons will be under the forward deck and 130 gallons in a flat tank under the floor of the main cabin. A special tank, not shown on the drawings, could be carried on top of the cabin roof to supply water for the shower. If exposed to the sun it should provide warm water most of the time. Abaft the forward tank and under the deck there is ample storage space for food, access to which is through sliding or hinged doors in the lower part of the forward bulkhead. If the boat is kept where the garbage cannot be thrown overboard but must be collected for disposal ashore, then a garbage container of waterproof plywood will be made to hang over the stern, on the opposite side from the swimming ladder. It will have a hinged top and a perforated bottom and all garbage will be placed in paper bags before disposal. If this tends to draw flies it may be sprayed with CN or other disinfectant as required.

Around the after portion of the cabin roof will be a rail 24" high. It may be of pipe or have cast metal stanchions and wire guard ropes. For appearance's sake, no awning has been provided over this deck but it would be an easy matter to rig one if it were wanted. The signal mast provides a place to display your club burgee or your private signal, also cocktail pennants or code flags; it also makes a natural lead for the radio aerial while the taffrail flagstaff provides the other support.

No provision for steering the boat when under way has been shown in the drawings because that is a detail that will be determined by the owner's wishes. If his plans simply contemplate moving the boat occasionally to bring her into the dock for water and supplies, then a simple extension handle from the motor tiller should suffice. A gadget somewhat like those used on the tillers of sailing dinghies would permit the steersman to stand on the catwalk, aft, and maneuver his boat through the anchorage to the float. If, however it is planned to take longer cruises, it is probable that a wheel will be located near the center line of the boat on the forward bulkhead in such a position that a clear view ahead will be had through one of the ports. In that case, it will be necessary to run wire tiller ropes aft to the

(Continued on page 86)

BOUND SOUTH IN WARTIME

Having Selected a N. Y. 40-Footer As a Southern "Home," the Next Job Was Getting Her There

By J. W. ROBSON

"BIG JIM" Davis and I had been interested in sailing for quite a number of years and before the war spent most of our summer months in or around boats, mostly on Long Island Sound. It was purely through force of circumstances brought about by the war that we found ourselves flying and based at Miami, instead of being on the sea where we really wanted to be; and it was our former preoccupation with boats, plus housing problems ashore, that led to our purchase of *Vixen III*.

Housing problems and living conditions in Miami and its suburbs are similar to those at all other war centers and cities which have been inundated by servicemen. However, added to this wartime situation was the great influx of vacationists and horse-racing enthusiasts during the winter at Miami. Therefore, when four of us, who are flying with the Air Transport Command, were evicted last February, we decided to solve the problem by buying and living aboard a boat. It was a fine idea, but the shortage of available boats that would be suitable for our purpose became immediately apparent. We combed shipyards and consulted brokers and were about to admit defeat when Richard E. Breed, the owner of the famous N. Y. 40-footer *Vixen III*, arrived at Miami Beach, in the Army. When he heard of our problem, he told us *Vixen III* was for sale; so we bought her, received two weeks' leave and headed north to sail our new "home" to Miami.

I got back to the States on the 12th of April, after spending about two months flying the South Atlantic, and devoted one hectic day trying to get myself and a crew squared away. After much letter writing, we believed we had a good crew all lined up, but it seemed that fate was against us, because, what with lawsuits and chicken pox taking two of our potentials, I was able to dig up only two other members. Anyway, three of us started north and met Jim Davis, who had done a Herculean job in getting all paper and legal work connected with the sale over with by the time we arrived.

It was Saturday, April 15th, when we arrived in Baltimore. It was a mean, raw, rainy day, which precluded doing anything on deck, so we shopped and finished up the small amount of left-over work. We visited the U.S.E.D. at Baltimore to investigate the possibility of the inland waterway, in case we had difficulty receiving outside clearance from the Navy, but found that Morehead City, N. C., was as far south as we could go. While *Vixen's* draft was not excessive, her 90-foot spar was too tall to go under wires that crossed the waterway above Southport.

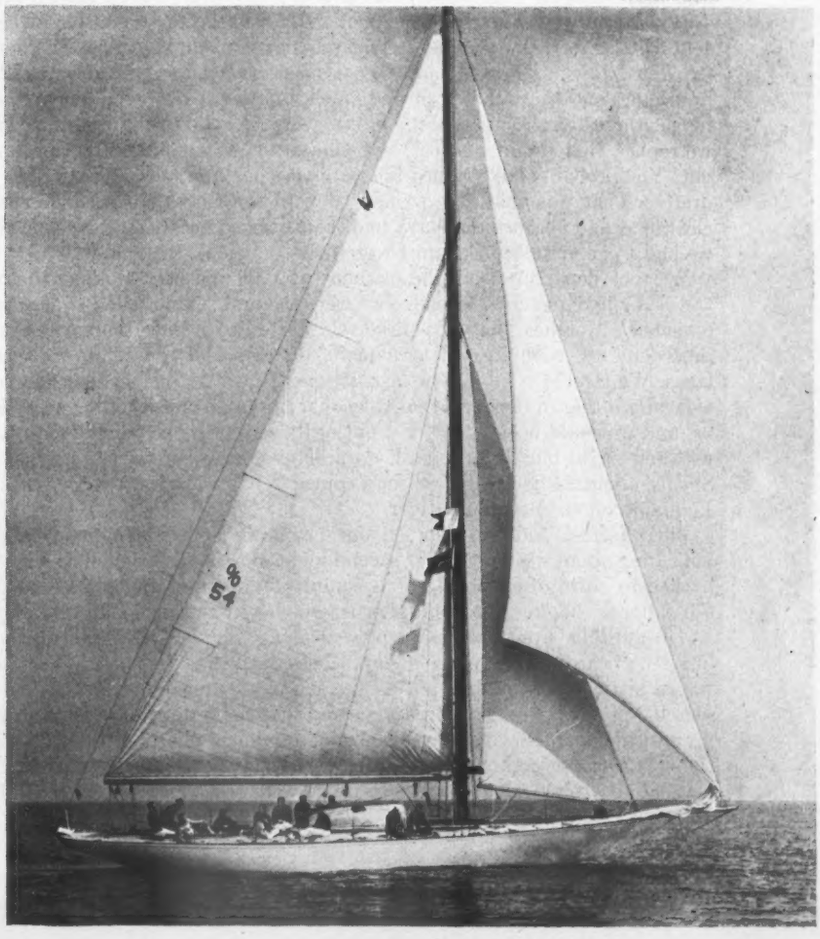
We slept aboard that night and were glad when Sunday arrived that it was sunny, but chilly, and was conducive to work. We set about readying the boat for departure and bent sails, loaded gear, set up rigging and finally pulled away from the dock at 1630 L.C.T. As we shoved off, a lady who was standing on the dock turned to her friend and mentioned that it was quite late to start on an afternoon sail. She was informed that we were bound for Miami. "What?", she replied, "I guess nobody will ever see those fools again!" With these encouraging words in our ears we backed into the stream, smiling bravely, and were off.

Our crew consisted of Jim Davis, Greg Maue, Vernon Stewart, Melville Anderson and myself. Only Greg, Jim and I had had any sailing experience worth noting, but Anderson, a flight engineer in the A.T.C., proved invaluable, since it was apparent immediately that the engine was in sad shape after months of lay-up. We hoisted sail when clear of the dock and, despite a year's growth on her bottom, *Vixen III* responded wonderfully and we squared away for the run down the river. Everyone's spirits were high and we secured all loose gear, stowed everything and were fairly shipshape before we were clear of the river.

We hit the buoy at the entrance to the Baltimore Channel and fell off before a fresh northerly. It was getting dark when we left the Annapolis lighthouse and Vern, whose appetite was so great that he had to do the cooking for self-protection, served some excellent chow, so that those of us who were standing the first watch were well fortified. It being his first real sail since he went to Africa in 1941, Jim sat on deck with us for a while. As we moved steadily down the bay, it was like old times when the three of us used to crew together on Long Island Sound.

During the night, the northerly whipped up a sea which caught us under the counter, so we were continually on the verge of a jibe. To prevent this and also to pick up speed, we hardened down a bit and began to tack down wind. With our abbreviated crew we were hesitant to jibe, so we would come about when necessary to change course. The wind freshened steadily and about eight o'clock the next morning we were performing one of these maneuvers when the main ripped at the No. 3 batten pocket. All hands were called and we were fortunate enough to get the sail down with only a superficial tear in it. Even after we bent the trysail we made good speed but, as the wind moderated, we called all hands again and bent the other mainsail we had aboard.

Frederic Lewis



"Vixen III" is a New York 40-footer. She was sailed from Baltimore to Miami, there to serve as a floating home

We entered the net at Norfolk at about 1700 with no further excitement and, by following the advice of the *Intracoastal Pilot*, we found a place to tie up. The engine was in bad condition and was obviously laboring, so, with two days of motoring inside to Morehead City ahead of us, something had to be done. As soon as we were tied up, Andy enthusiastically began to strip the engine and soon found the trouble. The manifold hot spot had been burned through, so that the exhaust from Nos. 2 and 3 cylinders were firing back into the carburetor. The next day we took the manifold to a machine shop, where it was repaired; while Andy, with the occasional aid of liquid refreshment to keep him cool, cleaned and practically overhauled the engine. Jim went uptown and made a few purchases and tangled with the Captain of the Port for clearance inside to Morehead City. As had been originally arranged, Greg returned to Baltimore from Norfolk. His departure left us terribly short-handed, so I scoured the town for new recruits, even calling on some of my friends, but all to no avail.

The result was that we pulled away from the dock next morning with a smooth-running engine but a depleted crew. Two dull days ensued as we chugged along with our sails furled most of the time. We ran aground once while under power and winched her out of the soft mud. Later on that day, we crossed Albemarle Sound with a fresh following breeze. To conserve gas, we set the main, rigged a preventer and turned off the engine. We maintained our speed but, to make the bell buoy going into Alligator River, we had to sail a bit by the lee. We relaxed when we had finally passed the bell and rounded up a bit when, suddenly, we ran hard aground right in the middle of the channel, half way between the red marker and a black can. We immediately swung around into the wind and were soon high and fast. We lowered the sail and took soundings and found that the water forward was shallower than aft. Since we drew more aft, we decided to try and winch her off that way. We were not sure just how securely the marker can was moored but our only chance was to try and winch off on it. We carried a line across the channel and made it fast to the can, then put it on our main sheet winch and were finally successful in getting clear, though it was a tedious process.

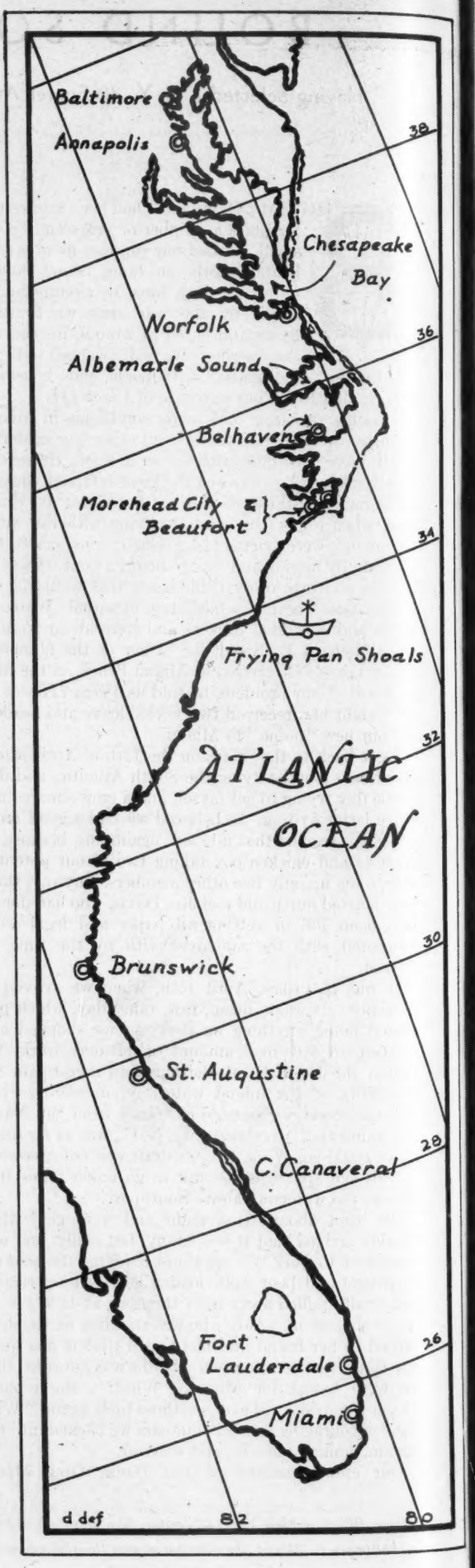
Shortly after that, we anchored for the night and spent the next day heading through the inland waterway for Morehead City. We had to put into Belhaven, N. C., to refuel, and this turned out to be more of a problem than we had anticipated, since the town was practically devoid of gas. We finally met an attractive young lass who gave us a few gallons while her boss was out to lunch and, with her waving us farewell, we once more headed south.

When we reached Morehead City we figured that the first and easy stage of our passage was over and went to the Coast Guard for clearance to go offshore. Our papers were in order and we all had War Department passes and we needed only the official sanction of and routing instructions from the Navy. When we headed for the Frontier Base to see the executive officer all felt a little worried, and that feeling was not immediately relieved when we explained the problem of our 90-foot mast and the overhead wires above Southport and he did not seem too much impressed. However, our answer to his next question terminated the interview to everybody's satisfaction. When we replied that we drew 9 feet, he bellowed: "Let you out, why, I order you out! You probably have ruined the waterway north of here already with that draft!" That was that. We rushed back to the Coast Guard and received clearance, and because the Navy had requisitioned nearly all the gas in town, we had to go across to Beaufort to refuel.

We took departure from the sea buoy at 1908 and headed along the route the Navy had given us. I believe we were the first sailing yacht to be cleared outside at Morehead City since the war started and, since there was thus no precedent, we were treated as a merchant ship and routed in the convoy lanes. We started off to follow instructions. However, during that first night we realized that in the dark a convoy could run us down without even noticing us, and we could not possibly get out of its way or make ourselves apparent with our small blinker and weak horn. Therefore, when we left Frying Pan Shoals, about 24 hours out, we set a course of SW to pick up St. Johns River Lightship off the St. Johns River.

With a fresh southeasterly on our beam we boiled along, our Kenyon indicating about 8½ knots. The second night out was amazing. The wind had backed to north of east and it was completely overcast and pitch black, but the water was aglow with phosphorus. Our bow was continually illuminated and beautifully apparent as we plowed along. Suddenly, off our starboard quarter I heard "slap," pause, "slap." I assumed that the noise was made by waves hitting our counter, but as the slapping persisted, I looked and observed a most appalling sight. It appeared that the water was leaping straight up into the air for several feet, showering luminous phosphorus in all directions. It was a second or so before I realized that porpoises were leaping and playing all around us and in their antics were scattering phosphorus about

(Continued on page 88)



THE PROOF OF THE PUDDING

The Designer-Builder of the First Molded Plywood Sailing Yachts Reports on the Results of the Initial Season

By A. E. LUDERS, JR.

SINCE the publication of photographs of *Temptress* under sail, many have asked me to tell of her performance during the past summer and to report on what we had learned and how our ideas had worked out in practice. Most yachtsmen who had not seen the boat at first hand had heard favorable reports but, since some had heard various rumors that she had fallen apart, or worse, we hasten to assure YACHTING's readers that in general she came up to our highest expectations.

As we tried many innovations in her design, no doubt readers will be interested to know how they worked out. To begin with, since we were experimenting with a new process of molded plywood, the question uppermost in our minds was how light we could go, and the only way to find out was to make the hull as light as we dared. On the first trial of *Temptress* in light weather, everything appeared to be perfect. On the second day out, with more breeze, we found that she was a little limber in a seaway and a distinct give could be felt in the hull around the helmsman's seat, although we could not find a trace of this give in any other part of the boat. We also found that when the boat was put head to wind and the sails shook, that this vibration was transmitted to the hull and the whole boat wiggled perceptibly. While this motion was not extreme, it gave one an uncanny feeling.

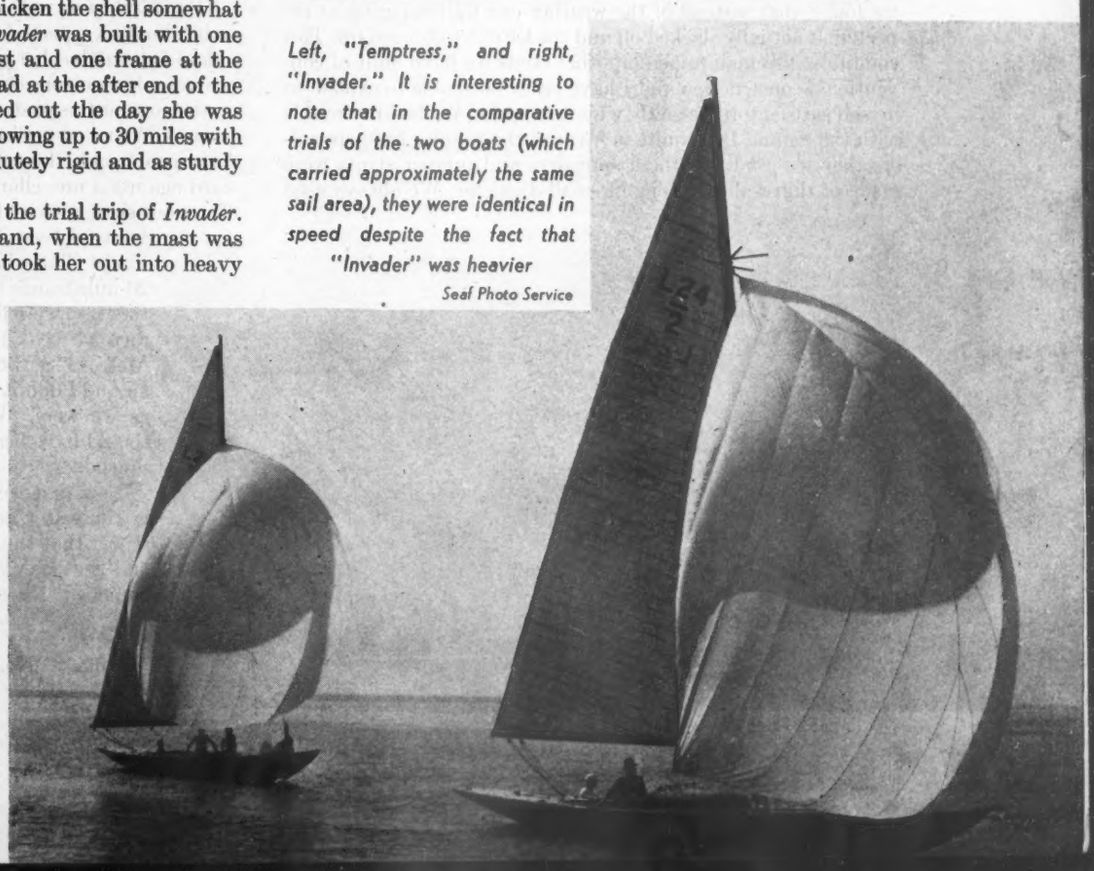
It was therefore decided to put in nine frames about as originally planned and shown in the published designs. This almost completely eliminated the give in the hull and the wiggle, but they still persisted under certain conditions owing to the excessive flapping of the loose-footed mainsail in a hard breeze. This was overcome by putting on heavier diamond shrouds, which had previously been of cobweb size and thus stretched unduly; therefore, when the second boat, *Invader*, was built, it was decided that it would be nice to retain the original feature of having the clean inside skin unobstructed by any frames, and that it would be desirable and less costly to thicken the shell somewhat and eliminate frames. As a result, *Invader* was built with one frame and some stiffening at the mast and one frame at the after end of the cockpit, plus a bulkhead at the after end of the cabin. The boat was thoroughly tried out the day she was launched in a good hard northeaster blowing up to 30 miles with heavy seas, and she proved to be absolutely rigid and as sturdy as one would want.

We had a rather new experience on the trial trip of *Invader*. We launched the boat at ten o'clock and, when the mast was stepped, we immediately set sail and took her out into heavy weather. This is a procedure which one would never recommend on a boat of conventional construction, as she should be given time to swell up first to develop her full strength, yet a molded boat with locked-in stresses does not come and go at all during the entire season. When these hulls are molded out of thin veneers, the wood is thoroughly seasoned; thus the laminated construction has a tremendous advantage over heavy, solid members which take months or even years to season. It is also interesting to note that in the comparative trials of the two boats (which carried approximately the same sail area) they were apparently identical in speed, despite the fact that *Invader* was the heavier of the two.

This summer we had occasion to try *Temptress* in all kinds of weather and everything stood up in fine fashion. We even made one extended trip into the ocean through the Sound, up through Vineyard Sound to Edgartown and return, during which time we encountered some pretty good winds and seas. The sailing qualities of both boats we found to be perfect and in moderate weather they would sail themselves to windward.

Our experiments and innovations were most interesting and they did not all turn out the way we had planned or expected! We had a jibstay which slid to leeward when on the wind, the theory being to open up the wind slot and eliminate the back draft on the mainsail. However, we found out that this did just the opposite; when we pushed the jibstay to windward, the back draft completely disappeared. Pushing the jibstay to windward seemed to give about the same result as when we put the jibstay amidships and used a two foot outrigger for sheeting the Genoa. As a design, this boat would, of course, be spoiled by adding four feet to the beam, so it seems that the rule makers might again consider the possibility of allowing outriggers for genoas and make the mainsail do its full share of work. The one we rigged was hooked up to the main boom and was quite simple to operate.

The three sail tracks worked out well from the standpoint of changing sails. When we set our large light weather mainsail and stemhead jib, there was no question but what we had a faster boat in light air; however, the conclusion we arrived at seemed to indicate that it would not pay in short races, and that



Left, "Temptress," and right, "Invader." It is interesting to note that in the comparative trials of the two boats (which carried approximately the same sail area), they were identical in speed despite the fact that "Invader" was heavier

Seaf Photo Service

(In recent issues of YACHTING (April, Nov., '43, and June, '44) there have appeared the plans and an account of the construction of "Temptress," the molded plywood cutter designed by A. E. Luders, Jr. Some time later photographs of the boat under sail were also published. Here the designer-builder gives a first-hand report of the results of her first season as well as that of "Invader." The latter boat, though of the same design, incorporates various improvements introduced as a result of the experience gained by analyzing the performance of her sister ship. — ED.)

the extra expense of these sails would not be justified for what was gained. Our idea in this wide assortment of extra light sails was to give the crew more to do but I am afraid it gave them too much on short races. When the design was originally conceived, we were afraid that we might strike a dead point in her sailing such as the Square-Metre boats experience in light air with a slop of a sea, when the working sail area would not drive her through properly. However, we were pleasantly surprised to see that she carried through this period admirably without having to resort to the large light weather sails.

• The backstay lever proved to be excellent, and it was not much bother when running before the wind to unhook the lee part of the stay and secure it to the forward rigging. The length of whip was just sufficient so that it did not get caught around the spreader. This is by far the simplest backstay rig I have ever sailed with. Readers who do not remember the other description are reminded that this is a lever type which is operated by the helmsman as you come about or jibe (as shown in the plans and photographs published in YACHTING*).

The deck of *Temptress* was made of small pieces of airplane plywood, which was all we could get at the time, and we had to make a great number of scarphs to piece out the deck. We had intended to paint the deck with anti-slip compound but the mahogany looked so beautiful that we varnished it for the first year. Incidentally, we found that we were a little bit light in the deck as it was somewhat springy, and in *Invader* we increased the thickness.

For *Invader's* deck we were able to get some beautiful mahogany plywood which we grooved to represent decking and then varnished. This made a handsome deck and the grooves seemed to make the deck much more secure as to footing so that this winter we are doing the same thing on *Temptress*.

The spar of *Temptress* was stepped directly on the keel and, as it was in the cockpit, it had no lateral support whatsoever at the deck. Everybody frowned on this idea and told us it would not work and, to play safe, we originally had it hooked up with two horizontal turnbuckles on each side to hold it. On the day we first tried it there was a moderate breeze and we started to slack up the turnbuckles. The mast started going gradually to windward at the deck level and it stopped after it had gone a total of ⅜". The rest of the summer we sailed blow high, blow low, without any deck support.

The shrouds on *Temptress* went through the deck and returned to the spar at the keel or step. We had a tie rod on each side which theoretically was to take care of the vertical component made by the stays at the deck; however, when sailing we found that instead of the weather one tightening up as expected, it actually slacked off and the lee one tightened up. This condition also maintained on other boats we have built of conventional construction and I have never been able to explain to myself satisfactorily exactly why it happens. We had no trouble with the rig and I am quite in favor of the tubular fixed spreaders that we used. All these spreaders and jumper struts were made of thin-walled tubing of small diameter. We always used to put hinged spreaders on racing boats of this type but, with the boom downhauls now in use, which keep the mainsail from billowing around the spreaders when running, I am convinced that there is no longer any need for them and they are just one more operating part that may break down.

* *Nov. 1943, p. 83.*

"We had a rather new experience on the trial trip of 'Invader.' We launched the boat at ten o'clock and, when the mast was stepped, we immediately set sail and took her out in heavy weather. This is a procedure one would never recommend for a boat of conventional construction."

A. N. Miller

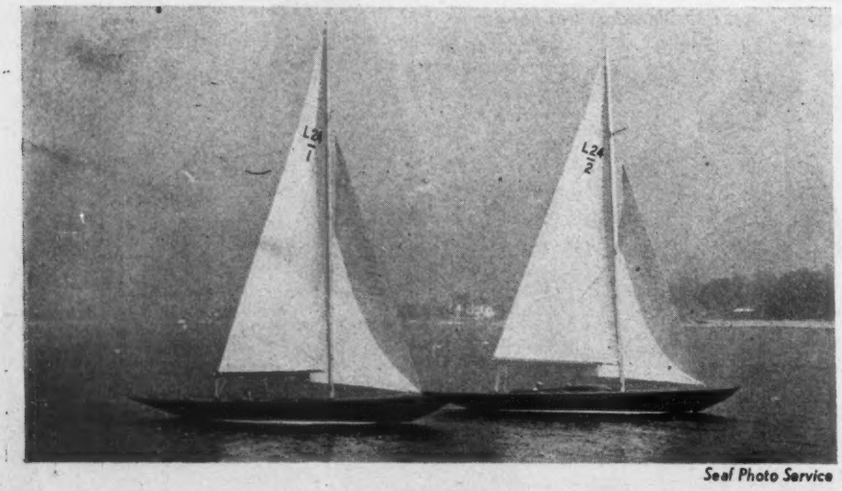
Many yachtsmen have asked us how the loose-footed mainsail worked out. In spite of the fact that we had the whole summer of week-ends available to try the boat, we never conclusively proved it was faster than the boom sail. In my opinion it seemed faster on the wind or on a close reach but off the wind it did not stay out as well as hoped for; even in a hard breeze, it needed a whisker pole to perform efficiently. Then too, in any hard breeze, we couldn't keep the head of the sail from flapping, which was annoying. Whether this can be overcome, I don't know, but I think so because a genoa of equal size does not have this trouble and, after all, this sail is comparable to a big genoa. Mr. Ratsey is looking into this and will make some slight changes in the sail during the winter. Most people seem to prefer *Temptress* with a conventional boom but it was nice to have a sail you could put up in jig time with no boom and no battens to bother with. I expect to do more experimenting with this sail next season.

As to the speed of the boat, we found that on the wind she was slightly faster than an International under all conditions, and slightly slower than a Six-Metre. Off the wind in a hard breeze was undoubtedly her fastest point of sailing, giving one a sensation of tremendous speed which, of course, she should have with her moderate displacement and long lines.

Her stability as well as her other sailing qualities turned out to be about as expected and her motion was particularly enjoyable. I believe that her sailing qualities can best be told without prejudice by someone other than her designer; she was certainly on the go a lot this past summer and was sailed by a great many persons. We raced her in only two official races. One was on the American Yacht Club cruise in about a 25-mile breeze to windward against a miscellaneous fleet of cruising and racing boats of various sizes, and we had the satisfaction of beating them all boat for boat. The other race was at the Huntington Yacht Club where we raced against a sizable fleet on a 20-mile course and, after leading the fleet for over half the way, were finally beaten by one "Q" boat. On this race we beat Eight-Metres, "30s," "R" boats, Six-Metres, "S" boats and various others, but it was light air and I doubt if the other boats were tuned up as well as we were. While it doesn't seem logical that we should have beaten all these boats, she certainly is no slowpoke.

Now that we have hauled her out after six months in the water and all kinds of sailing, we are glad to report that the structure shows no signs of any strain and she hasn't leaked a drop from the day she was launched. No seam shows anywhere in the boat and,

(Continued on page 96)



"Temptress" (No. 1) and "Invader" (No. 2). Note the latter's streamlined cabin trunk

Seal Photo Service

YACHTING'S DESIGN CONTEST

THIRD PRIZE: A POWER CRUISER BY AN AMATEUR DESIGNER

Designed by CHARLES L. MORSE, JR.

Judges' Comment: This design represents more than mere thinking about the considerations of "low-cost production" of moderate size craft, for both her over all design and the details of her construction reflect the designer's efforts to produce a craft which combines a soundly conceived hull, a compact interior which offers the maximum in the way of conveniences, more than average speed and a building plan which should afford substantial economies in both materials and manpower.

Of special interest is the fact that this 27-foot "speed cruiser," which has a maximum speed of 25 miles per hour, is, with minor exceptions, an "all plywood" craft.

Her construction details, which are indicated in the illustration below, warrant careful study. While many of them are not new, they suggest numerous building and design techinques which appear to be both practical and economical. Among them are:

A combination stainless steel-rubber-laminated wood rubbing strip which is constructed on the same principles as a rubber engine mounting.

A convertible cockpit seat in the stern, providing large stowage space beneath the after deck.

A swinging metal cover over the stove which hides it from view when not in use.

Laminated keel, chines and sheer stringers.

Plywood web frames.

Preformed plywood deck and cabin top.

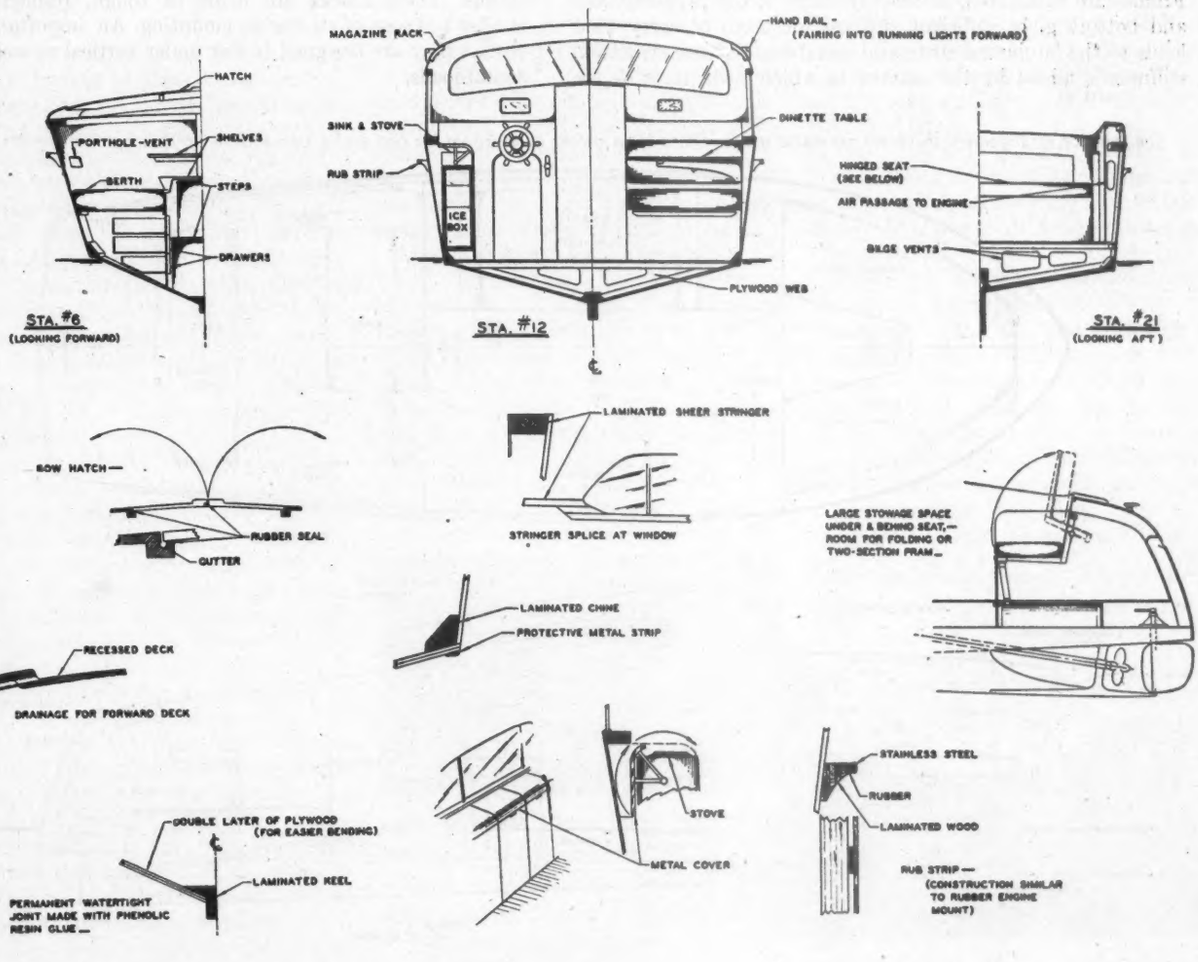
A hand rail which fairs into the running lights forward.

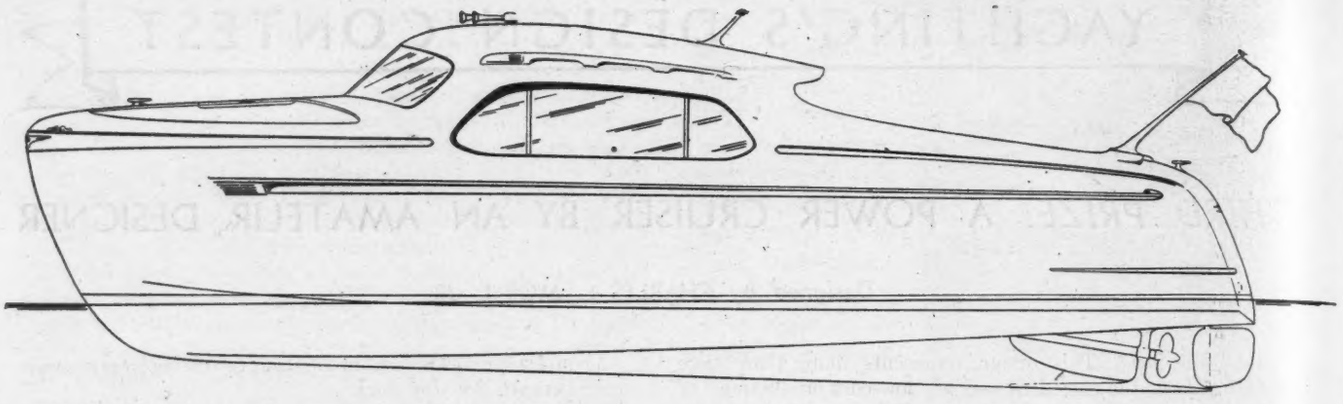
A dinette-bed combination in the deckhouse.

Designer's Comment: This 27-foot "speed cruiser" is the result of combining the agility and grace of a speed boat with the comfort, roominess and utility of a cruiser. The design is an endeavor to pack the characteristics of a big boat into the dimensions of a small one, and thus make possible a commodious and versatile craft at low cost.

Like every design, this boat is of necessity a compromise. Considerable care has been taken to develop all design details as

Construction details reveal both ingenuity in design and resulting economies in building costs





Her design combines the sleekness of a small commuter with the spaciousness of a standardized cruiser

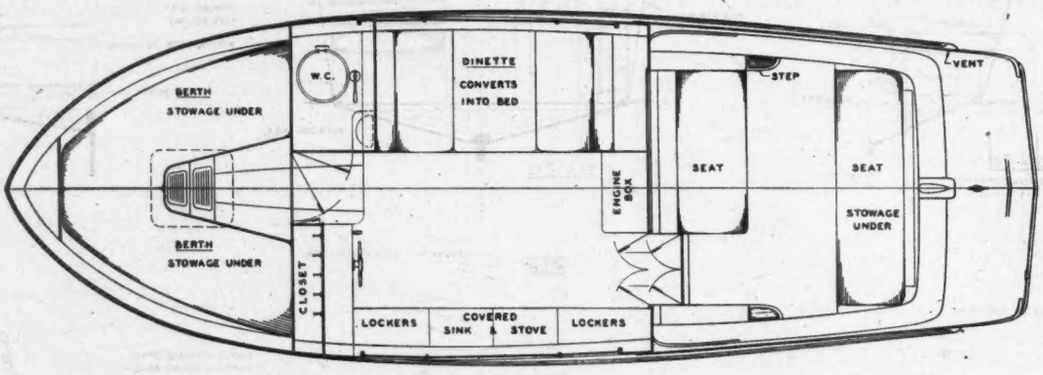
fully as possible, yet not to the extent that any feature has been introduced at the expense of another. For example, her top speed, with a 100 hp. motor, is nearly 25 miles per hour, which is reasonably fast but not excessively so. That is, the boat will step right along but will not require the tremendous increase in horsepower that would be needed for an added speed of five or ten miles per hour. Thus cost and upkeep are kept down to a reasonable figure.

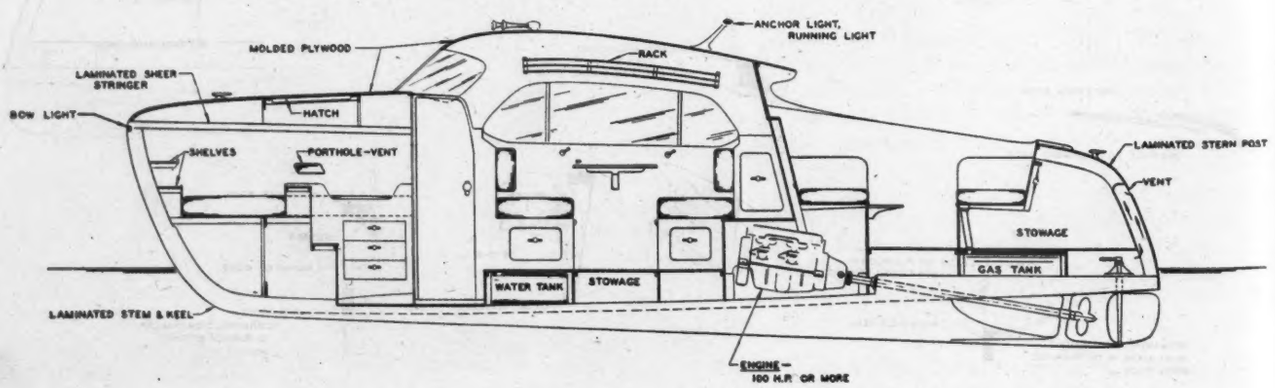
The hull is designed for low-cost production and can be built with a minimum of skilled labor. The sides and transom are made of ½" sheet plywood, and the bottom is covered with a double layer of ⅜" sheet plywood, which permits easier bending than would a thick sheet. These plywood panels are attached to the laminated keel, sheer and chine members, which in turn are held in place by bulkheads formed of sheet plywood. As far as possible, these bulkheads are designed to serve other functions as well, such as forming the natural partitions of the cabin. Frames are eliminated, as the curvature of the plywood sides and bottom gives sufficient stiffness for them to carry their loads to the laminated structural members. Further structural stiffness is added by the manner in which such items as the built-in forward bunks and shelves are constructed. (See construction sketches on preceding pages.)

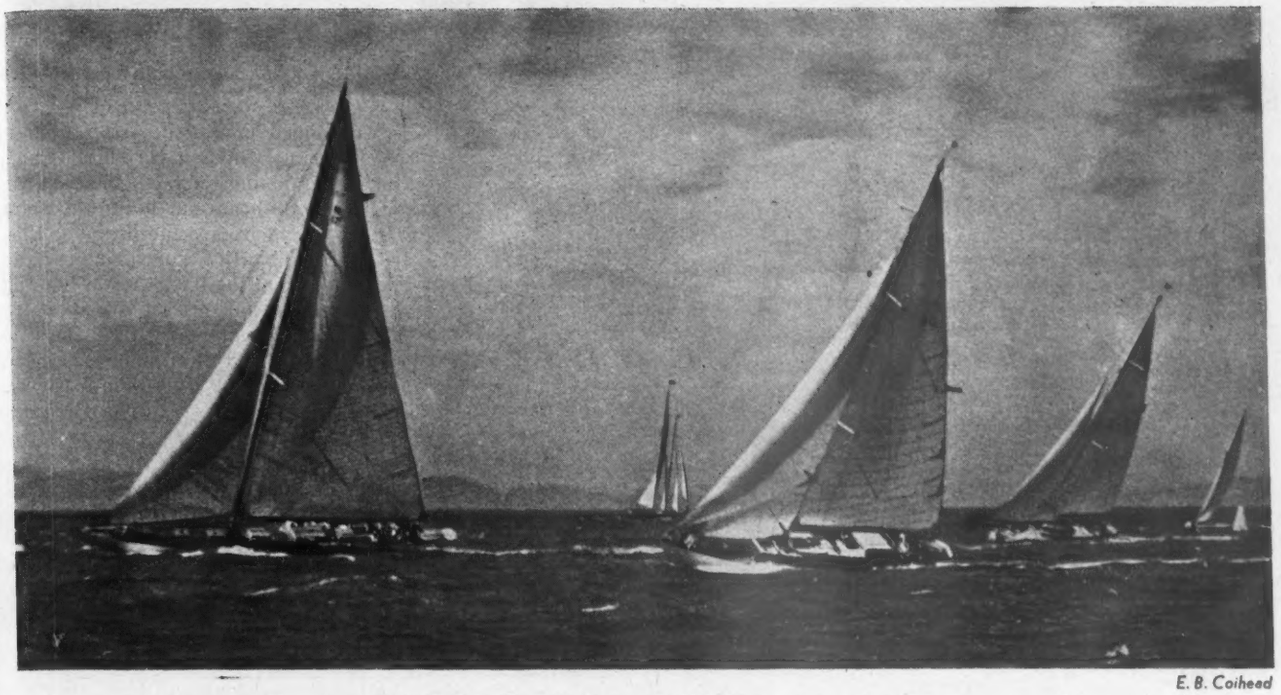
In laying out the lines, the keel, sheer and chines were developed so that all points of each lie in a single plane. Thus all laminated sections can be built with one bending jig, using adjustable stops. After being fastened in place, sections will be bevelled where necessary by using a portable sanding machine. Molded plywood construction is used for the cabin roof and the forward deck.

As this is a flush-sided boat, access to the forward deck is provided by means of a hatch in the forward stateroom. However, narrow walkways are also provided along the sides of the boat, which serve other functions as well. They also act as rubbing strips and are designed to be used as continuous cleats. In addition, they serve as longitudinal stiffeners. The outer surface of these rubbing strips is protected by a strip of corrosion-resisting steel which is bent to shape and mounted on rubber blocks. These blocks are made of tough, resilient rubber, similar to those of an engine mounting. An important feature is that they are designed to flex under vertical as well as horizontal loads.

The interior arrangement discloses no waste space. There is an owner's stateroom for two and a convertible double bunk in the main cabin







E. B. Coihead

A major West Coast event is the annual Pacific Coast Regatta. Here are "Patolita," "Senta," and "Yo Ho Ho" fighting it out in the 1939 event

THE MONTH IN YACHTING

THE PACIFIC COAST YACHTING ASSOCIATION

▶ The story paralleling the growth of the P.C.Y.A. is that of the development of the West Coast during the last 20 years, as well as the story of some of the West's finest yachtsmen. Names that ring familiarly because of having made real contributions to the sport as well as to the organization are those of John C. Piver and Ronald Maitland, of the Northwest; Lester Stone, Stanley Barrows, Charles Langlais and Glenn Waterhouse, of San Francisco; Clem Stose and Alonzo Jessop, of San Diego; John Stick, King Brugman and Dr. Albert Soiland, of Los Angeles. In fact, the P.C.Y.A. was the brain child of Dr. Soiland.

Founded in 1923 by the Pacific Inter-Club Yachting Association of San Francisco Bay, the Southern California Y.A. and the Pacific International Y.A. of the Northwest, the P.C.Y.A. set out to coordinate yachting activities on the Pacific Coast to promote its best interests. These activities included the annual Pacific Coast regattas which are held at various points along the coast, the promotion of junior activities, the handling of trophies such as the San Francisco Bay Perpetual Challenge Trophy and the competitions for these prizes, and securing state and federal aid for yachting projects.

Every year, until the war made such races inadvisable, the P.C.Y.A. delegated the Pacific Coast regattas to its various member organizations, alternating up and down the coast. In 1927, the 5th annual regatta of the P.C.Y.A. was held in Santa Barbara, under the auspices of the Southern California Y.A. There were five days of racing, and the classes included the "Rs," Stars and other types of sailing craft as well as power cruisers, outboards, hydroplanes, and even yacht tenders equipped with outboard motors. In 1928, the Pacific Coast Championship Regatta was held at Vancouver under the auspices of the Pacific International Y.A.

In 1935, when San Diego held its World's Fair, the San Diego Y.C. was host to the Pacific Coast Championship Regatta, while, in 1939, the West held one of its largest and most enthusiastic regattas during San Francisco's Golden Gate International Exposition. There were also the Olympic yachting events during the 1932 Olympiad, which was held in Los Angeles.

In 1929 Dr. Soiland went to England and northern Europe to discuss the coming event with Mr. Heckstall-Smith and other members of the International Olympic Yachting Committee. He came home with promises from the three Scandinavian countries that each would enter a "Six" and an Eight-Metre at the 1932 Olympic Games.

Now, despite the war, yachting still goes on along the Pacific Coast, especially on San Francisco Bay. Here 80 to 90 boats have been active in all of the Association's regular events.

The P.C.Y.A. is now making extensive plans for a postwar cruise to Mexico. All details are in the able hands of Charles Langlais, of San Francisco, and Alonzo Jessop, of San Diego, and there are already several boats in San Francisco whose owners have set their hearts on going. These will join other cruising yachts as they go down the coast, joining Mr. Jessop's group in San Diego.

BARBARA VINCENT

Above, Captain Victor Slocum and Andrew B. Sides admire the painting of Joshua Slocum's "Spray." Presented by George M. Slocum, it will hang in the ship's wardroom

Below, the "Joshua Slocum," named for the famous seaman, was recently christened at the New England Shipbuilding Corp

Washington Star

The start of the final race of the 20-footers in the 1941 President's Regatta. This regatta included 148 boats representing 13 classes

A DECADE OF RACING ON THE POTOMAC

▶ The Potomac River Sailing Association was ten years old this past autumn, and the record of its formation, of its early years and what it has done for yachting in the area of its operations is therefore timely. The Association had its beginning in the casual meeting of two skippers on the Potomac River one early fall day in 1934. One boat was a Snipe, the other a little knockabout. As one might expect, they decided to have a race, and when it was over they agreed to pass the word around to their respective clubs — Old Dominion Boat Club in nearby Alexandria, Va., and Corinthian Yacht Club in Washington — to come out two weeks thence for the first of a series of handicap races.

Pushed by the individual efforts of Grover Farnsworth, skipper of the little knockabout, and Arthur Clephane, skipper of the Snipe, seven boats came out for that now-famous first handicap race. The starting gun was fired from the yawl *Zephyr*, owned by J. W. "Jack" Marsh, who was to become the first commodore of the Association. Twenty-four boats were racing by the end of that season. There were dinghies, sailing canoes, scows, yawls and catboats, and all were racing on a handicap basis. An organization meeting was held in Washington on October 24th, 1934, with Marsh named commodore, Farnsworth vice commodore, Clephane secretary-treasurer and Robert Menzel recording secretary. A constitution, which has served to this day with but minor changes, was adopted.

But in those early days of the Association it was not the yacht clubs but individuals who fostered the organization. The Association had fully accepted the belief that much of the best material for racing skippers is found among youngsters and others outside of clubs. The only prerequisites for membership were — and still are — the ownership of a sail boat and a desire to race.

By the time of the spring series of 1935, officers were working toward a Memorial Day race to Quantico, Va., which was followed by a regatta. The races at Quantico were won by a Comet sailed by D. Verner Smythe, who was to become a commodore several years later. By the fall of that year, 10 of these smart one-designs were racing on the Potomac. Perhaps the Association's most important step was taken when it participated in the President's Cup Regatta. A single day, September 27th, 1935, was set aside for the windjammers, which competed for prizes donated by *The Evening Star*. Forty-three boats competed; there was a single race in the morning for Comets, Moths, sailing canoes and handicap boats, and that afternoon the entire fleet raced as one class. The following two days were taken over by the speed boat enthusiasts.

Obviously impressed by the turnout of sailing craft, Cup Regatta officials planned a day-and-a-half of races the next year. Close to 80 boats put in an appearance, some coming from as far distant as Rhode Island and North Carolina, and it became apparent that the P.R.S.A. was beginning to grow up and attract attention from other sailing centers. By 1937, the sailors won a week-end of their own, the races being held a week before the power boat races. Entries that year totaled 125 boats in 12 different classes. The 1938 races brought out 129 boats, and close to that number appeared for the 1939 regatta, which boasted one entry from San Juan, Puerto Rico. By 1940, the entry list had swelled to 133 starters, while the last regatta before the war set a record when 148 boats in 13 classes answered the starting gun.

Meanwhile, because Potomac River skippers raced long and hard, they were soon making a name for themselves in races of the Chesapeake Bay country. Up to the outbreak of the war, the pattern for the year was a spring series starting in April, a down-river regatta over Memorial Day, a summer of regatta-riding on the Bay, and a fall series which often ran into the "frostbite" season.

With the outbreak of the war and the addition of many new faces to the organization, the Association began a summer series and also stepped up its spring and fall events so that a total of 12 races was being held in each series. Exclusive of special events, this means Potomac River skippers compete in a minimum of 36 races a year. In addition, Penguin sailors sponsor "frostbite" races throughout the winter. Looking to the postwar period, Association officers have begun discussions with Federal authorities in Washington which they hope will result in Capital sailors having a clubhouse and mooring area of their own.

BRENT S. DRANE

Dr. Alan R. Lukens, III, coach, (second from right in the bottom row), and some of his champion M.I.T. skippers and their crews

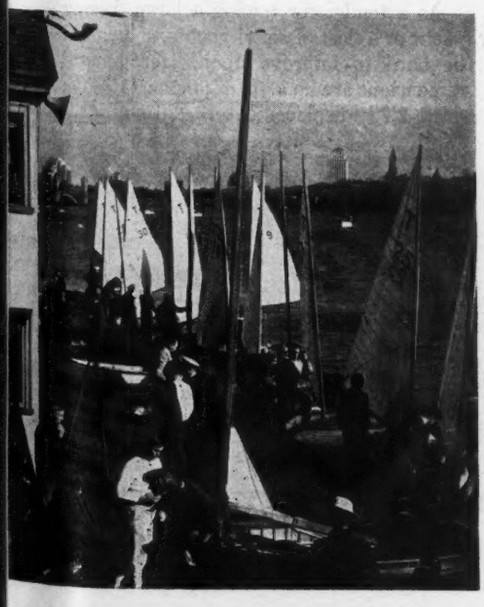
DINGHY SAILING AT M.I.T.

▶ It is traditional that departing dinghy skippers leave behind them a wake of cold records and names engraved on silver trophies and that the real wealth of experience of "the tricks of the trade" used by former winning helmsmen usually is buried ten fathoms deep.

Silverware collected by former Massachusetts Institute of Technology skippers was fast disappearing from the well-filled prize locker, and Sailing Master Lt.-Cmdr. Walter C. "Jack" Wood had gone to the U. S. Coast Guard Academy . . . but "Doc" Alan R. Lukens, of M.I.T., did some concrete research on the winning systems used by past dinghy aces and gathered a harvest of trophies this past autumn, both on the Charles River Basin and in "foreign" waters. The "comeback campaign" of the Tech sailors was marked by thick gloom at the start. Where once could be found the McMillan Cup, the Morss Championship Cup, the Schell Trophy, the Brown Invitation Cup and the Leonard Fowle Trophy Plaque, were empty niches in the Tech Sailing Pavillion.

At the dedication of the splendid new home for small boat sailing at the Coast Guard Academy were a serious and only faintly hopeful delegation of Tech sailors. Once again they watched Jack Wood's protégés give M.I.T. and eight other colleges a lesson in racing. Lt. Cmdr. Wood, who has a warm spot in his heart for Tech and is wise in the wrinkles of sailing, suggested that a bit of coaching might help. With all of the Tech delegation except one busy at wartime duties, it was Lukens as coach — or none. Lukens has been sailing at Tech since 1936, is one of the three charter members of the "Bos'ns" and a frequent keeper of Intercollegiate Yacht Racing scores. He offered to spend as much time as possible developing Tech sailors, but preferred that his efforts be unofficial until they might show results.

It was decided to work with previous freshmen, now sophomores, and to use new freshmen as a sailing "farm." Later, when "Doc" Lukens had combed the cream of the 700 or more sailing members of the M.I.T. Nautical Association, he inculcated the wrinkles worked out by former Tech aces.



The M.I.T. sailing pavilion on the Charles River was a busier spot than usual during the 1944 Schell Trophy Regatta

Cautious Conrad: Piscatorial Perfection

At the Coast Guard regatta on May 7th, Charles Bloomer showed promise in the later races. He is well built, 6 feet 4 inches in height. Bloomer had a small boat racing background gained at Sodus Bay, Lake Ontario. At Tech, he had co-skippered with Leigh Brite against the Navy at Annapolis and also did well against Brown at Providence.

This past summer, during the week-end races against the more experienced graduates, staff and alumni, a local lad, Richard Worrell, with no sailing experience but with a tiller touch, won the series. He also is a sophomore and stands 6 feet 3 inches in height. Putting such sizeable skippers into 12½-foot dinks calls for light crews. It is now the custom at Tech to make the job of becoming Varsity "crew" equally important with that of skipper. Two freshmen, Roger Emerson, of Milton, Mass., and Johnny Hansen, of Council Bluffs, Iowa, have won this distinction.

These four sailors are now racing for Tech when but two crews are called for. However, the I.C.Y.R.A. is promoting regattas calling for three and four crews.

At Tech, there is a good supply of sailors close on the heels of Bloomer and Worrell. A standout is Leigh Brite, who recently won four out of five races in an invitation regatta between Tech and Brown. He hails from Washington, D. C., where he sailed on the Potomac under various burgees. Morton Bromfield, another promising sophomore and V-12 student in marine engineering, gained his experience in Massachusetts Bay in 17-foot handicap sloops. Three promising freshmen are Lawrence White, of New York City, who learned his sailing in Maine, and is Chief Cox'n at Tech; Alfred LaFountain, of Barnegat Bay; and Dan Greenbaum, a finalist in the fifth annual freshman intercollegiate individual dinghy championship, a Martha's Vineyard sailor.

"Doc" Lukens' men have turned the tide. The fall record has been impressive and the silverware has started to return. The success of the "farm" system is bearing fruit and the record speaks for itself.

M.I.T. Summaries, 1944

	Winner
April 9th — Oberg Trophy	Tufts
April 30th — Boston Dinghy Cup	Coast Guard
May 7th — Coast Guard Academy Bowl	Coast Guard
May 21st — Morss Trophy	Coast Guard
June 10th — McMillan Cup	Harvard
Sept. 1st — Fowle Plaque Trophy, at Charles River	M.I.T.
Sept. 3rd — Danmark Trophy at New London	M.I.T.
Sept. 10th — Brown–M.I.T. Invitation, at Providence	M.I.T.–Brown tie
Sept. 17th — Tech–Brown Invitation, at Charles River	M.I.T.
Sept. 24th — Oberg Trophy Greater Boston title	M.I.T.
Sept. 29th — I.C.Y.R.A. Freshman Team Championship, at New London	M.I.T.
Oct. 1st — Annual Brown Y.C. Invitation, eight colleges at Brown	M.I.T.
Oct. 8th — Jack Wood Trophy, at Charles River	Coast Guard
Oct. 15th — Quadrangular Championship, at New London	M.I.T.
Oct. 21st — M.I.T.–Andover Invitation, at Charles River	M.I.T.

ED EARLE

DESIGN SECTION

The plans reproduced in this section are the property of the designers under whose name they appear. For further information concerning any design, address the naval architect in question.

A 39-FOOT UTILITY BOAT BY STEPHENS BROTHERS

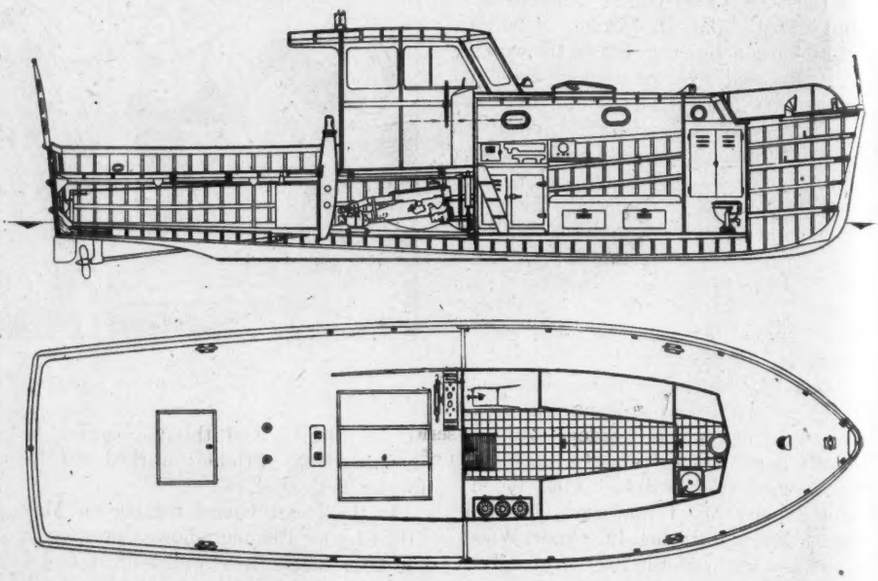
THIS husky utility boat which was designed and built by Stephens Brothers, of Stockton, California, for their own use, has proven eminently satisfactory in operation, according to the owners. She has shown unusual ability as a tow boat, having handled two 110′, 350 ton lighters at one time and has also towed 165′ tankers about the Stockton area. Stephens Brothers have built a number of 72′ tugs for the Army; these craft have a displacement of about 85 tons. The 39′ utility boat has towed these tugs at better than 7 miles per hour with her throttle set for 1700 r.p.m.

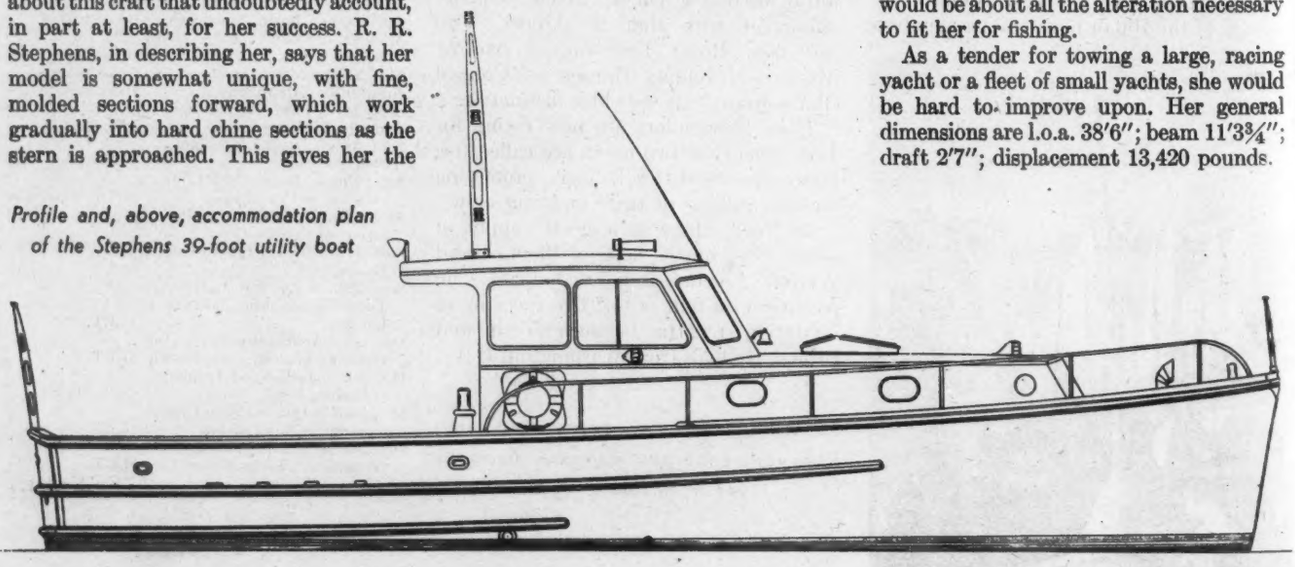
Her power plant consists of twin Chrysler "Crown" motors of 90 hp. each, driving 19″ by 19″ propellers through 2:1 reduction gears of the new, fluid drive model. According to the designers, this combination has proven wonderfully successful, being extremely flexible, absolutely reliable and smooth beyond their fondest hopes. With the boat running light and her engines opened up to their maximum r.p.m. of 3100, she is capable of doing 21 miles per hour, which is a remarkably fine performance for a utility boat which has to be built with the ability to "take it" as a primary quality and speed as a secondary consideration. Under certain circumstances, it can be extremely important to a boat yard to be able to get there, and get there in a hurry, and that is when a boat such as this can be almost invaluable.

There are a number of unusual features about this craft that undoubtedly account, in part at least, for her success. R. R. Stephens, in describing her, says that her model is somewhat unique, with fine, molded sections forward, which work gradually into hard chine sections as the stern is approached. This gives her the easy entrance of the molded, or round bilged, hull and also the ability to develop high speeds with great stability that is characteristic of the V-bottom, or chine-built, boat. It is interesting to observe that this type of hull agrees in principle with the hulls that are now used by the Navy for our fast cruisers. Great strength has been built into this hull by the lavish use of waterproof resin-bonded plywoods and waterproof resin glue in the construction. In addition to great strength and rigidity, the use of plywood and glue has done much to reduce the shrinking and swelling so prevalent in the conventional type of joinerwork.

The broad sunken deck aft and the wide side decks have proven most useful space for carrying either gear or personnel, and this feature of the boat has appealed to a number of sportsmen who have seen her in action. To their eyes, this boat would be almost ideal for sport fishing either with rod and reel or with the harpoon. The addition of a pulpit forward, the changing of the mast to accommodate a lookout, or crow's nest, and also the inclusion of a short derrick boom for boarding big fish would be about all the alteration necessary to fit her for fishing.

As a tender for towing a large, racing yacht or a fleet of small yachts, she would be hard to improve upon. Her general dimensions are l.o.a. 38′6″; beam 11′3¾″; draft 2′7″; displacement 13,420 pounds.





Profile and, above, accommodation plan of the Stephens 39-foot utility boat

A CENTERBOARDER BY SPARKMAN & STEPHENS

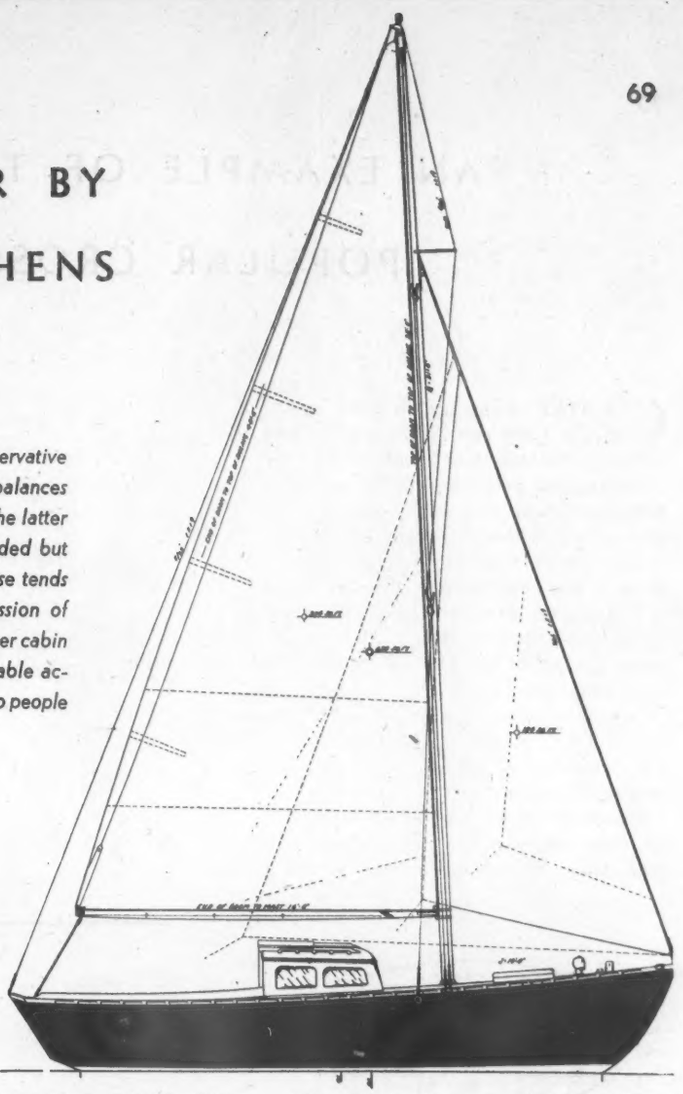
BUILT in the spring of 1939, *Pelican* was the last boat built by the Jakobson & Peterson Shipyard in Brooklyn and the first boat launched by the Jakobson Shipyard at Oyster Bay. This was due to the fact that the construction of a parkway forced the shipyard to move, thus making it impossible to launch the boat in Brooklyn. She was, therefore, trucked over to Oyster Bay for launching.

The basic arrangement and deck layout of *Pelican* was suggested by her owner, Lt. Col. Dave H. Morris, Jr., and was worked out in general accordance with his ideas for an afternoon sailer and small cruising boat, to be used in the neighborhood of his place on the Eastern Shore of Maryland.

Pelican's dimensions are l.o.a. 29′6″; l.w.l. 23′0″; beam 9′1″; draft 2′1″. The shoal draft requirement made the centerboard essential and it is interesting to note how it has been worked in so as not to interfere with either the cabin arrangement or the engine installation.

Her freeboard is unusually high with the intent of giving full sitting headroom under the main deck, but it is offset by the short cabin trunk. This is the type of deckhouse that has been more used on larger boats and provides full headroom in the way of the galley, an unusual feature on a centerboarder of this small size.

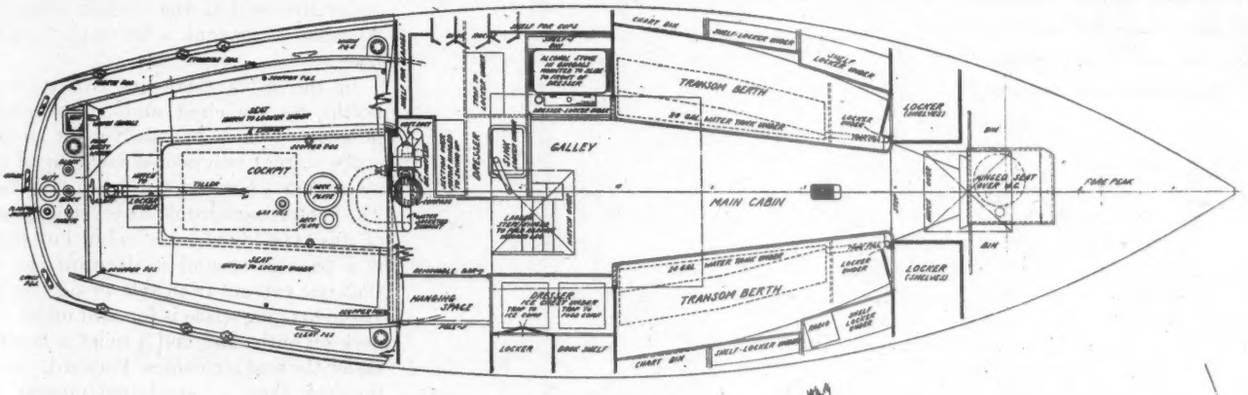
The sail plan is conservative yet adequate and balances well with her hull. The latter is somewhat high sided but the short cabin house tends to offset the impression of chunkiness. Below, her cabin plan shows comfortable accommodations for two people

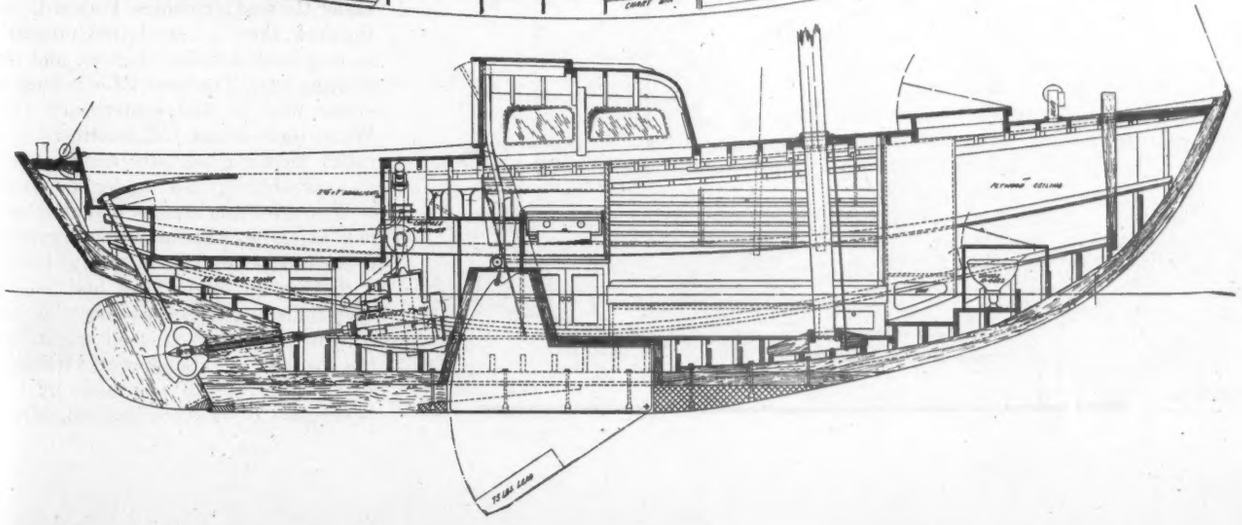


The sunken, self-bailing cockpit, which is large and roomy, was made possible by the high freeboard.

Auxiliary power is furnished by a two-cylinder Universal Blue Jacket twin.

The sail plan is conventional in design and 438 square feet in area. While *Pelican*, with her wide beam, shoal draft and high freeboard is not a racing boat, yet her sailing qualities have proven satisfactory.



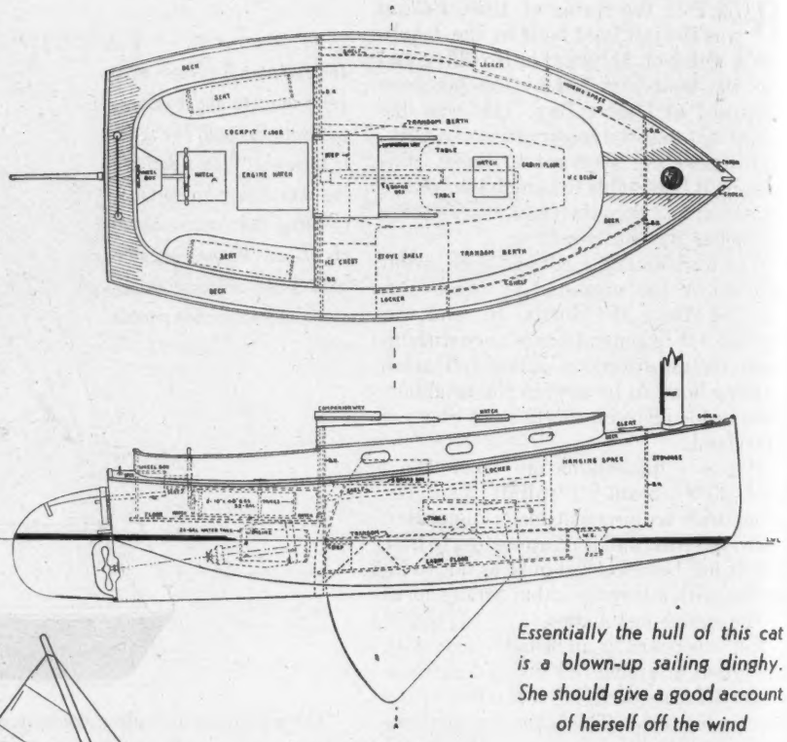


AN EXAMPLE OF THE PERENNIALLY POPULAR CROSBY CATBOAT

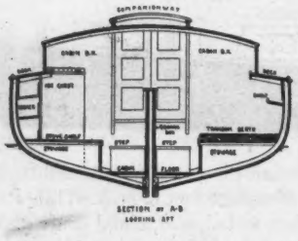
CATBOAT sailors are a breed apart, of this there can be no doubt. Once bitten by the bug, their loyalty to the type is unshakable, persisting regardless of the development of new and wonderful improvements in the art of yacht designing.

The plans reproduced herewith are those of the latest model from the board of Captain H. Manley Crosby, of Osterville, Mass., and show a boat that adheres closely to the characteristics that have made the Crosby Cat so deservedly popular. Her general dimensions are, l.o.a. 24′0″; l.w.l. 23′3″; beam 10′9″; draft 2′4″ with the centerboard up. Her sail area is 579 square feet.

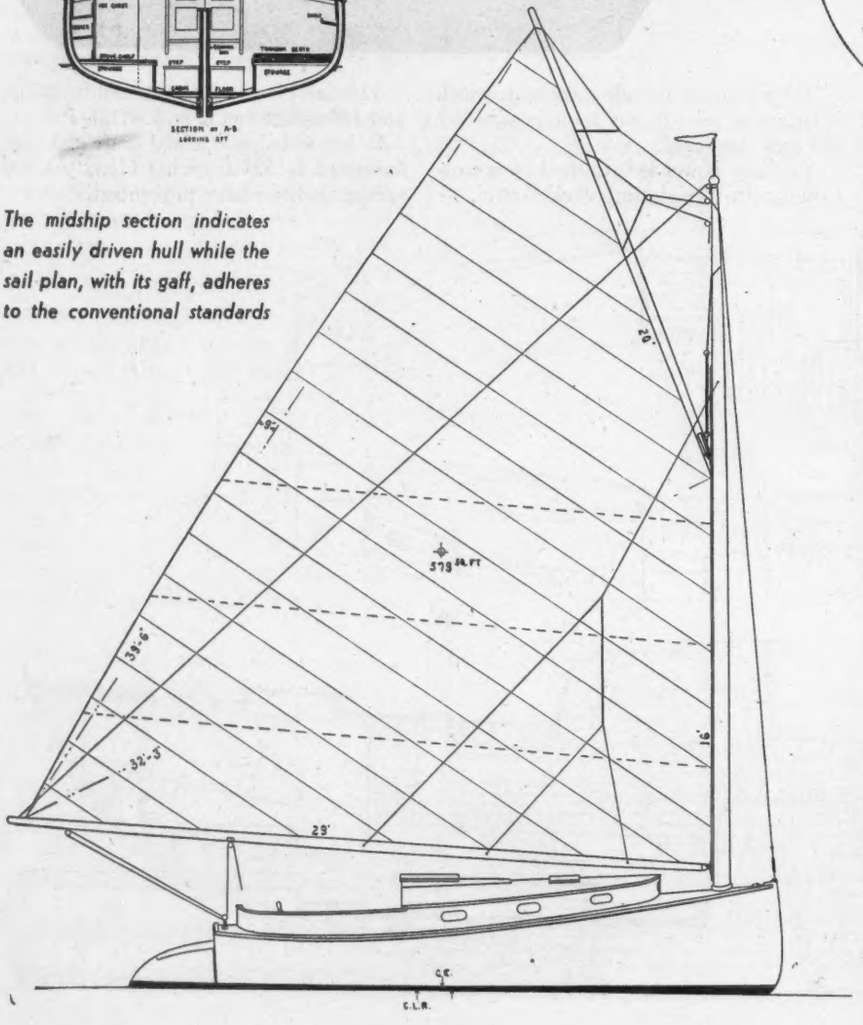
Power is supplied by a 4-cylinder, 20 hp. Gray motor with a 2 to 1 reduction gear, the motor being located under a flush hatch in the cockpit, where it is entirely out of the way. The gasoline tanks, of 32 gallons capacity each, are located under the seats in the cockpit while the 20-gallon water tank is below the cockpit floor.



Essentially the hull of this cat is a blown-up sailing dinghy. She should give a good account of herself off the wind



The midship section indicates an easily driven hull while the sail plan, with its gaff, adheres to the conventional standards



In the cabin there are two transom berths, an ice chest and a stove, also necessary lockers and shelves for storing duffle so that two people could go off for an extended, longshore cruise in this boat. The centerboard trunk, as is usual in cats of this type, divides the cabin but there is a passage around its forward end so that one can get from side to side easily. Large hanging space is forward under the deck on both sides and a toilet is located under the seat amidships. Forward, under the deck, there is a good sized forepeak for storing anchor rodes, anchors, and other cruising gear. The mess table is hinged to either side of the centerboard trunk. While there is not full headroom in her cabin, there is good "stooping headroom" — approximately 5′3″ under the beams.

With keel and frames of native white oak, planking of Philippine mahogany and decks and cockpit floor of teak, all fastened with Everdur screws, this hull has been well built indeed. All joinerwork is of African mahogany, finished bright, while the spars are of Sitka spruce. Fittings are bronze and the sail was made by C. E. Beckman Co., of New Bedford, Mass.

"DATER" A NEW STOCK BOAT BY P. L. RHODES

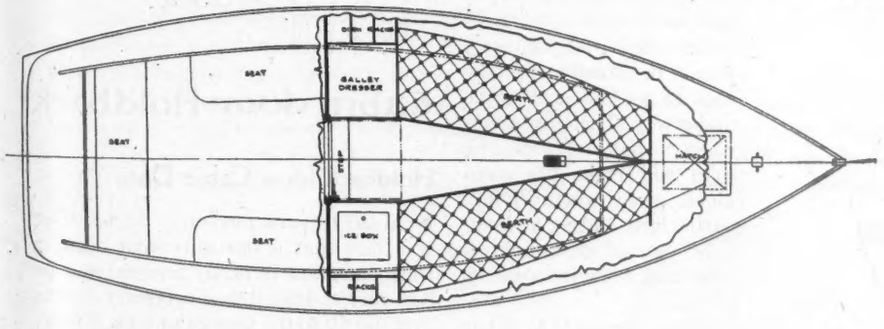
"Dater's" sail plan is pleasing in proportions and, with the overlapping jib, should be quite efficient to windward

ANOTHER of the growing fleet of Donald B. Abbott's stock cruising boats, *Dater* was designed by Philip L. Rhodes, of Cox & Stevens, Inc., as a smaller edition of his own boat. The principal dimensions of this little packet are l.o.a. 20′ 6″; l.w.l. 18′ 0″; beam 7′ 6″; draft 3′ 8″; headroom 3′ 10″. Her sail area is 222 square feet in a well proportioned sail plan. The two berths in the cabin are each 6′ 3″ long which is enough to accommodate almost any one who would go cruising in such a small boat.

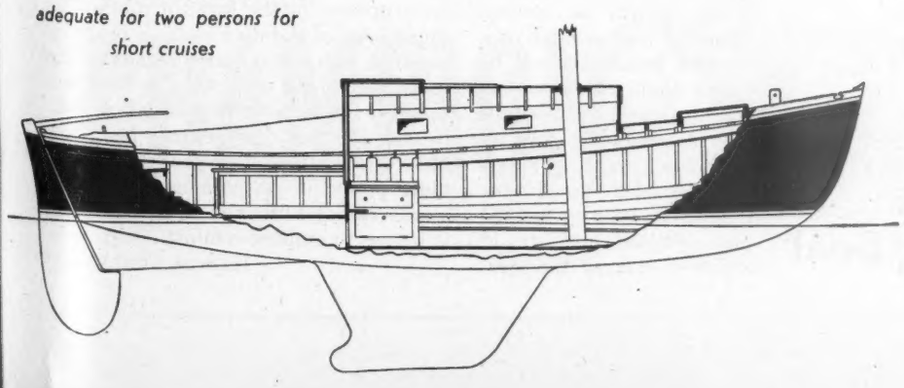
Specifications call for keel, frames, floors and stem of oak, while the transom, coaming and sheerstrake are of either oak or mahogany. *Dater's* spars are of spruce and the mast is of the conventional, hollow box construction. Standing rigging is galvanized and all fittings are of bronze (when obtainable). The planking of this boat is either white cedar or mahogany, whichever can be secured at the time of building, while her deck and cabin roof are of waterproof plywood, canvas covered.

One of her most interesting features is the keel which may be unbolted from the hull for shipment or inspection. This member is reminiscent of the keel used in the Star Class. It undoubtedly contributes much to the sailing qualities of the boat but, of course, makes it necessary to provide a carefully fitted cradle when hauling out. Generally speaking, boats with long, straight keels are easier to handle on a marine railway than those with fin keels.

A boat of this size does not permit her designer much latitude in cabin arrangement and Rhodes has followed the conventional layout in this case. It will be noted from the arrangement plan that no toilet is shown although one may be installed as optional equipment. The space under the cockpit seats might be utilized for lockers, water tanks or for food storage and an ice chest. One cannot afford to waste even one inch in so small a boat.



Cabin accommodations are adequate for two persons for short cruises



Several of the new boats were built during the 1944 season and have proven eminently satisfactory in service. Owners report that they are a joy to sail and that they have a surprising turn of speed. For a party of four *Dater* is comfortable for day sailing, and a man and his wife or a couple of youngsters can go off for weekend cruises with the assurance that they will find her accommodations adequate.

It would seem that a fleet of these boats, provided, perhaps, with parachute spinnakers and genoa jibs, would make a satisfactory class for afternoon racing as well as offering limited cruising facilities.

GADGETS & GILHICKIES

For a Very Small Cruising Boat

▶ Cruising in really small boats is a division all its own of the sport of sailing. The problems involved are quite different from those confronting the racing man or the day sailor, and they are certainly different from those of the man whose cruising boat is large enough to carry all the gear necessary to comfortable living afloat. It is my belief that the sport is going to increase in popularity in this country until it attains the same degree of importance that it has with our British contemporaries. No doubt many of the converts to small boat cruising are boatmen who formerly owned larger yachts and were forced by the pressure of economic events (euphemism for "taxes") into smaller sizes, more or less against their wills; there is, however, a large and growing group of sailors who have embraced the sport for its own sake, men who have discovered for themselves the genuine joys that are open to a man of modest means when he takes the tiller and heads into the unknown waters of the shallow coves or winding streams that will never be seen by his long-legged brothers who prefer to do their sailing in larger cruising boats.

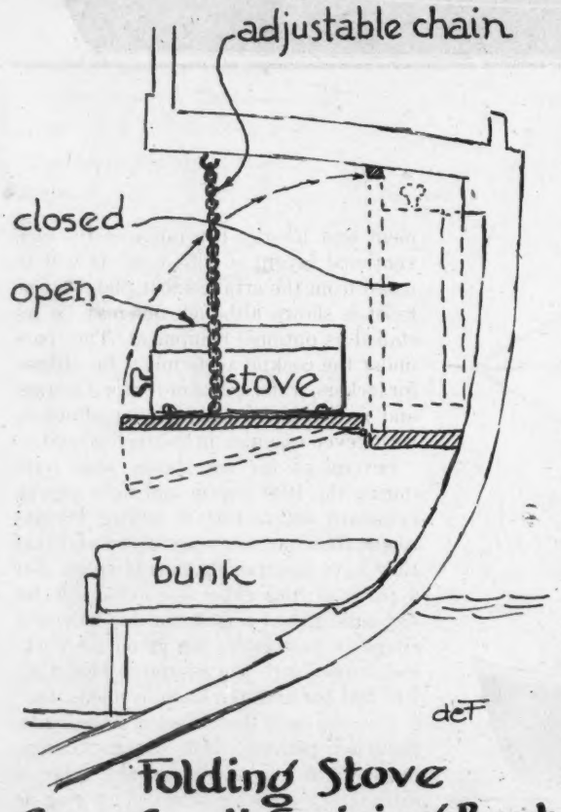
It is my hope that, as time goes by, this page may become increasingly useful to the men who go down to the sea in little ships; that the more vocal and ingenious members of the fraternity will send me, from time to time, suggestions of ways to make the sport more enjoyable to their brethren. Be assured that your contributions will be welcomed by the editor and by your fellow sailors.

One of the principal problems of the small boat cruising man is that of providing a suitable means of cooking meals. It is axiomatic, of course, that every inch of a small cruiser should be used to the best possible advantage and this necessarily implies making every space serve double duty; the ice box becomes a seat, the cockpit (with the aid of an awning) becomes a cabin at night, and the galley becomes the end of the captain's bunk; the cabin doors, a table.

Illustrated here is a suggestion that appeals to me as a practical way of utilizing some of the space close up under the deck that might otherwise be wasted. It would be easy to mount, as shown, one of the reliable, liquid-burning stoves whose fuel supply is self-contained. This installation could be made at the after end of one of the bunks, where the stove, in its open position, would occupy a minimum of cabin space.

The hinged shelf upon which the stove is mounted had better be covered with a shallow metal pan to catch any possible drip, and the space behind the stove should be sheathed with a thin fireproof board, such as Johns-Manville "Flexboard," for example. By hanging the inner edge of the shelf from the cabin roof with a chain, as shown, it will be possible to adjust it so that the stove will be on an approximately even keel, even when the boat is heeled well over. Thus it would be possible for the cook to get hot meals while under way. There are times when a bowl of steaming soup will make life seem much more worth living, particularly after a long, hard day of thrashing to windward when the weather is cold.

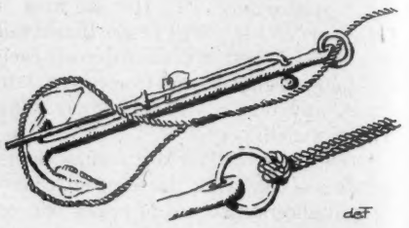
When the shelf is lifted into the closed position, where it will be secured either by a snap catch or a wooden button, it will be found that the stove becomes a back rest. Details and dimensions of such an installation must, of necessity, be made to fit your individual situation but the plan outlined here should suffice to convey the idea.



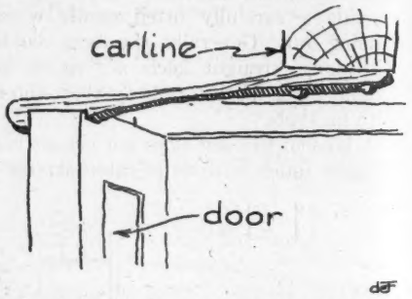
Folding Stove for a Small Cruising Boat

Securing an Anchor Rode

▶ Here is a mighty useful suggestion sent in by G. J. Pierre, of Detroit. It is simplicity itself and consists of a large eye splice in the working end of the anchor rode; this splice being big enough to pass over both the flukes of the anchor, after having been passed through the ring in the anchor's shank. This method permits the rode to be attached or cast off in a matter of seconds and eliminates the need of thimbles, shackles (with possible loss of pins) or lashings. When not in use as a rode, the line is available for use as a docking line or a tow rope. As Walter Winchell would say, "Orchids to Mr. Pierre."



Method of securing Rode to an Anchor. Suggested by G. J. Pierre



Cabin door Holdback

Holdback for a Cabin Door

▶ Aboard Norris Pierson's *Old Salt* there is a door that is normally kept open, in which position it partly covered the ice box door so that it was necessary to lean over nearly to the floor to unhook it every time one wanted to open the ice box or have privacy in the forward cabin. The upper edge of the door clears a beam by about an inch so it occurred to me that the installation here of a wooden holdback would be an improvement. Made of oak, it holds the door open securely and without rattling when the boat is running under power. It cost nothing and released a brass hook for other work. Another contribution to cruising comfort.

HAM DE FONTAINE

in days to come . . .

When the time finally comes to "cast off" for that long planned cruise, or a summer filled with week-ends afloat, you can count on the dependability of Champion Spark Plugs to play a major part in making those days a pleasant memory. Champions, now more than ever before, are one small item of equipment which has a great big capacity for keeping engines smooth, economical and dependable.

Today more Champion-equipped marine engines are on active duty throughout the world than ever before. The records they have compiled bespeak a degree of better spark plug performance and dependability without precedent. The same qualities and superior performance are available to you in Champion Spark Plugs for your marine engine, from smallest outboard to high speed, high output engines for express cruiser or racing boat. Demand Champion Spark Plugs for championship performance in every marine engine. Champion Spark Plug Company, Toledo 1, Ohio.

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Be sure your post-war boat—like most of the PT-boats, crash boats and patrol boats now in service—is equipped with a Kidde built-in fire extinguishing system.

The Kidde automatic system, at the first indication of fire smothers engine space with flame-choking carbon dioxide gas. So efficient is the Kidde system, the fire seldom lasts twenty seconds.

Moreover, dry, inert carbon dioxide will not leave any after-fire mess to be cleaned up; nor will it harm—even slightly—*any part* of your boat in *any way whatever.*

Most post-war boats will be delivered already equipped with Kidde built-in extinguishing systems. The boat you now own, too, can be equipped in your own boat-yard—easily and quickly—with an automatic or manually-controlled Kidde system. For details, write Kidde... or see your boat-yard operator.

Kidde systems, also known as LUX, carry full approval of Underwriters' Laboratories for motor boats.

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WATERFRONT NEWS

PROTECTIVE COATING OF PLASTIC

▶ This is another product of the laboratory that fills a long felt need. Its purpose is to protect metal surfaces from the corroding action of chemicals and salt water. "Amercoat" coatings are in use in many industries to guard against contamination and corrosion. A combination of the most inert of the new thermoplastic resins, it is unaffected by mineral acids, alkalies or solutions of their salts.

It contains no ingredients that are soluble in gasoline or fuel oil and, being also impervious to salt water, it remains a hard, imporous coating over the steel. These coatings have many other applications. For further information write Amercoat Division, American Pipe & Construction Co., Box 3428, Terminal Annex, Los Angeles 54, Calif.

A HARMLESS MILDEW PREVENTIVE

▶ A new product that will prevent mildew in clothing and leather goods aboard ship has been introduced under the name of "Mil-du-rid" by the Interchemical Corporation. This is believed to be the first fungicide to be brought out that is safe for non-industrial use. It has been used extensively to prevent mildew on shoes, books, luggage and clothing in the tropics. It would appear that the application of this product to a new suit of sails might prolong their useful life. It may be applied with brush or spray or may be wiped on with a cloth. The Interchemical Corp., Fairlawn, N. J.

A NEW STAR FINDER

▶ Designed by S. S. Rabl, this new Star Finder is a compact, easy-to-use instrument for increasing the accuracy and cutting down the time required to determine the position of any star. It is also useful in identifying an unknown star and in reading altitudes and azimuths. Made of a heavy grade of paper and with complete instructions for use, it is only 8" square. For sale by the Cornell Maritime Press, 241 West 23rd Street, New York 11, N. Y. Price $1.50.

SKIN PROTECTION

▶ Under the trade name of "Skin-kote," the Cadet Laboratories, of 10 Clarence Street, Worcester 5, Mass., are manufacturing and distributing a hand protecting cream. It is put up in jars and will protect the hands of the user from the effects of paint, turpentine and other foreign substances. The application of the cream to the hands in accordance with instructions will, it is claimed, enable the user to wash his hands clean when the work is done. Priced at 50¢ for the 6-ounce glass jar, or $1.00 for 16 ounces, it will take the place of a pair of work gloves. Available in larger quantities at special prices to industrial users.

NEW CATALOGS OR BOOKLETS AVAILABLE

▶ The Perkins Marine Lamp & Hardware Corp., 1943 Pitkin Ave., Brooklyn 7, N. Y., has published a catalog of available marine supplies. It will be sent upon request on your letterhead.

How to Obtain Maximum Efficiency in Motor Boat Propulsion is the name of a booklet being distributed gratis by the Michigan Wheel Co., Grand Rapids, Mich. It is well worth reading if you are interested in propellers.

Operators of diesel engines will find it worth while writing to the Youngstown Miller Co., Sandusky, Ohio, for a copy of its descriptive leaflet on the *YM Robot Oil Refiner* for cleaning diesel oil.

A catalog of new adhesives of its manufacture has been issued by the B. F. Goodrich Co., Akron, Ohio. In addition to adhesives of many specialized uses, the catalog covers also fabric coatings, binders, sealers, etc.

By those interested in a description of the new science of electronics — and who is not? — a new booklet entitled *Electronics in Industry* will be welcomed. It is available, gratis, from the Radio Corporation of America, RCA Victor Division, Camden, N. J., and describes the where, what, why and how of the science. Profusely illustrated. "BEACHCOMBER"

The ARMY & NAVY

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Propellers damaged in far away seas are frequently irreplaceable. But our war craft must go on with a minimum of delay. And, thanks to Michigan MACHINED-PITCH Propeller Reconditioning Equipment, which the Army and Navy use exclusively, they do.

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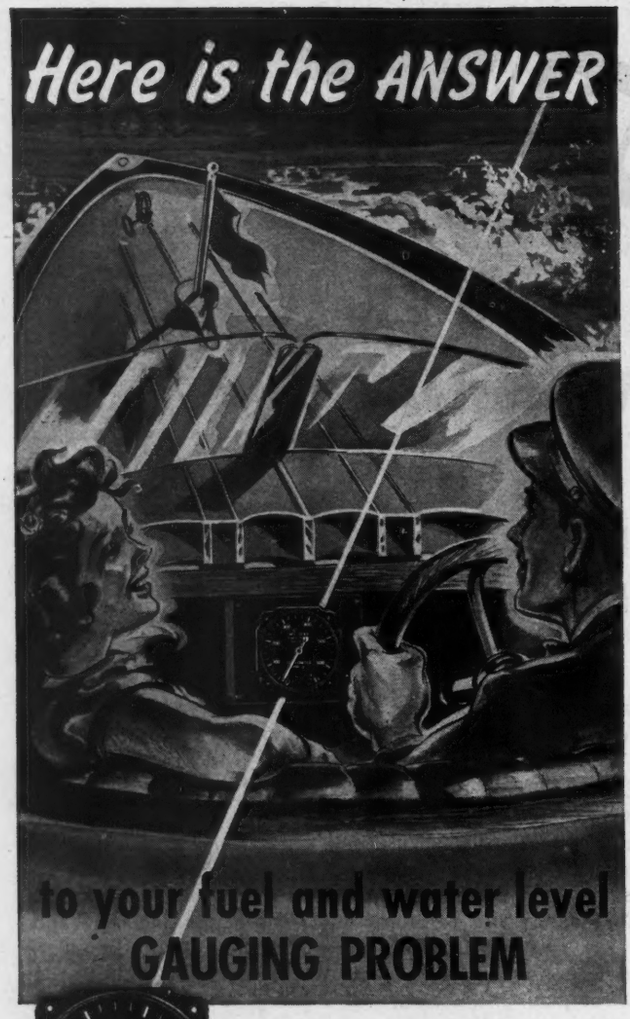
Perfect accuracy is absolutely essential to good propeller performance. And that's one basic reason why you will derive more satisfaction from propellers built by the MICHIGAN MACHINED-PITCH process. If you would like to know more about it, write for our new catalog No. 145.

3 TIMES WINNER OF THE "E" AWARD

MICHIGAN WHEEL COMPANY · Grand Rapids 3, Michigan



For many years pleasure boat owners have needed a reliable fuel gauge—one that not only is accurate, but completely safe and dependable. The improved Levelometer Type "L" liquid level gauge, we believe, fills this need.

Thousands of these same fuel level indicators have passed the rigorous tests of battle use. The accumulated results of years of engineering developments are now available in the Levelometer Type "L" for all pleasure and small boat operators.

Be sure your postwar specifications provide proven Levelometer Fuel Level and Water Level Gauges.

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MARINE DIVISION

41-19 37th STREET, LONG ISLAND CITY 1, N. Y.

IN THE WIND

▶ From Lt. Felix Mulgrew, erstwhile passionate yachting enthusiast and currently serving aboard a man o' war in the Pacific's unpacific reaches, comes the yarn about the anchor detail of a destroyer who thought to outwit her skipper and for a while succeeded in doing so. . . . Observing that the old man was partial to using the starboard bower — in fact, invariably did so — these rascals made off with the port bower, replacing it with a *wooden* facsimile. . . . They sold the anchor to some natives for a quantity of palm wine, grass skirts and whatnot — and the skipper continued to let go the starboard bower as usual. . . .

However, came the fatal day when for some reason he decided on the other mudhook — and got the shock of his nautical life when he observed the desperate detail on the foc'sle head frantically trying to make it sink! . . .

▶ An item in the news not long ago struck your correspondent as peculiarly lively and unique. . . . It ran as follows:

> . . . Some New Orleans-born war boats are tricky, have an anchor with wench attachment in the stern. When one approaches too-shallow water, the crew throws out the anchor and runs the boat up on the beach. If it can't back out under its own power, the wench gets it out by pulling against the anchor. . . .
>
> Ah, these wonderful women!

▶ A department store contributed a bright thought for Christmas Giving by advertising 4572 lanterns released by the U.S. Maritime Commission. . . . Some of these were described as "*starboard* lanterns, *red or green*". . . .

And hung in Gimbels? . . . .

OPINION

Adolf was a dope a-
Bout Mittel-europa.
—*Caleb Bilgewasser*

▶ And very ingenue Angelica thinks an *octopus* is a musical opus in eight movements. . . .

▶ Among the yachts to be honorably discharged from the Navy's "valiant converted fleet" of patrol vessels was the U.S.S. *Siren*, formerly the *Lotusland* and described as having originally boasted three Italian marble fireplaces and a huge pipe organ. . . .

Wonder if the organist was the bo'sun. . . .

▶ According to a gay and informative *feuilleton* published in the interests of good living and called *Table Topics*, wine has been used in the christening of ships for hundreds of years. . . . The first specific instance of this form of baptism occurred, however, in 1610 when H.M.S. *Prince Royal* was launched at Woolwich. . . . This on the authority of Vice Admiral Adolphus Andrews, U.S.N., and Robert G. Skerrett, author of *The Baptism of Ships* which was published in the *Proceedings of the U.S. Naval Institute*. . . .

▶ V-Day seems to have been indefinitely postponed by V-bombs. . . .

▶ A cynical editor confided to me that the only things he had sent for Christmas were manuscripts back to their authors. . . .

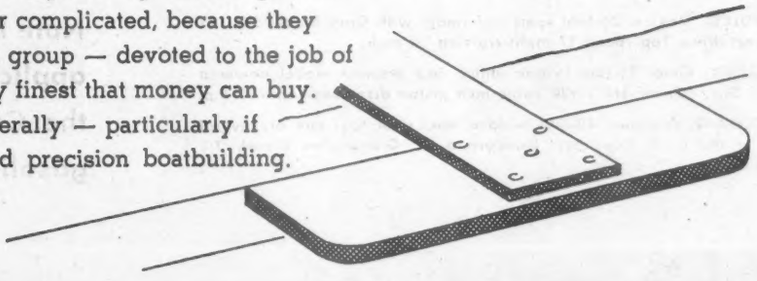
▶ Maybe one of the things we're fighting this war for is to convince the people of the benighted nations that Liberty is something more than just a statue in New York Harbor. . . .

▶ Horse racing has been declared *verboten* for the duration but there's no ban on *yacht* racing which is a lot more exciting. . . .

TELLTALE

NOW...
is the time to
Consult our Engineers

IF you are planning a post-war custom-designed steel pleasure craft of 50 feet or more, you will find no one better able to serve your needs than Sturgeon Bay. Our experience and position in the marine industry is one of long standing and wide repute. Our craftsmen skilled and proficient — with an advanced knowledge of building boats from steel which already has earned us a most enviable reputation. One outstanding department of our organization is our engineering and design division — For them, no job is too big or complicated, because they are a capable, trained, and seasoned group — devoted to the job of giving American yachtsmen the very finest that money can buy. It will pay you to investigate us generally — particularly if you are an adherent of quality and precision boatbuilding.



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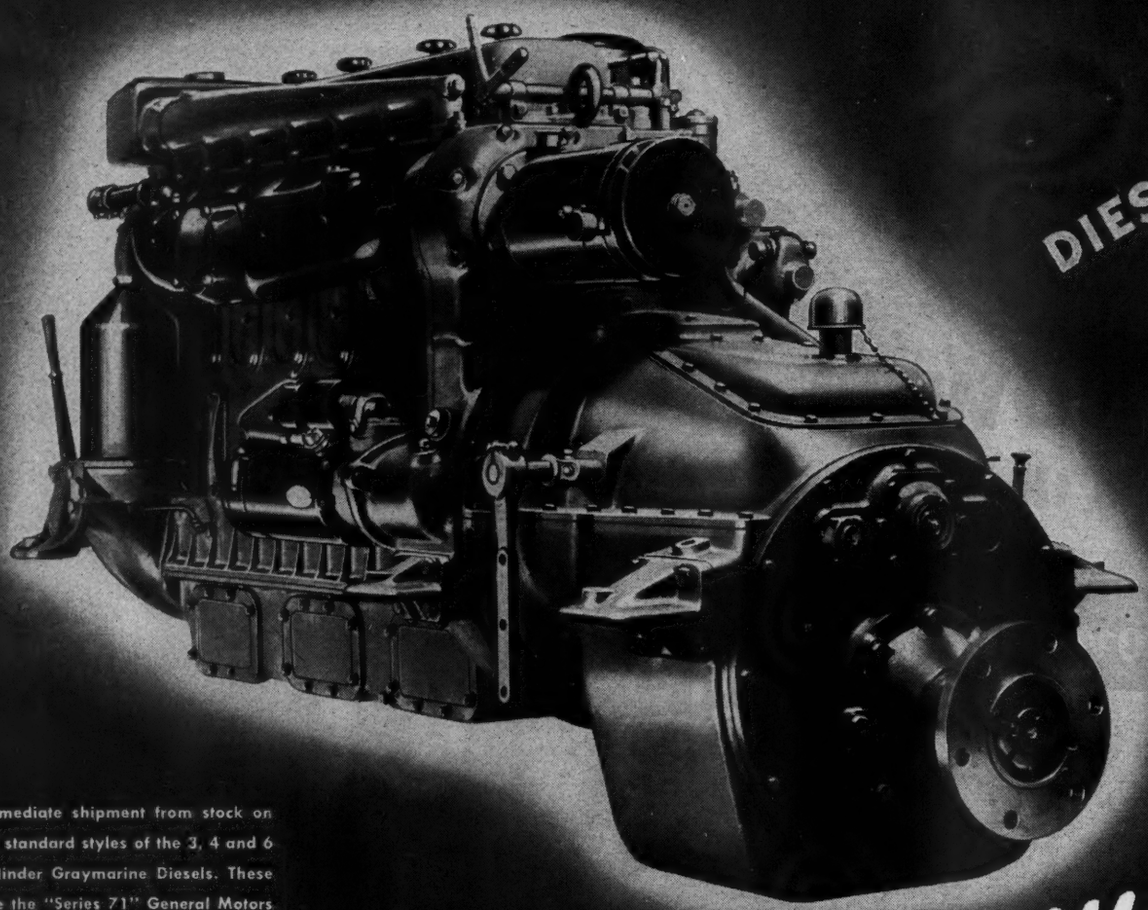

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GASOLINE AND DIESEL ENGINES

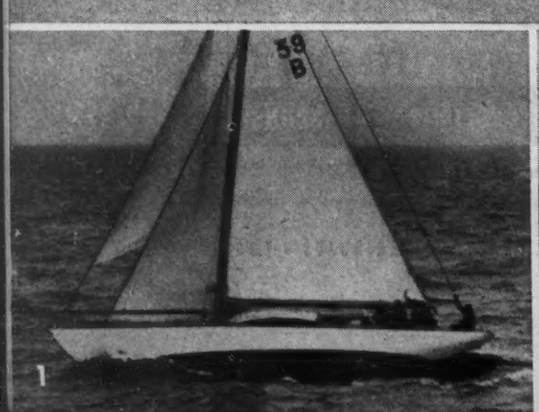
IDENTIFICATION OF BOATS

1. AMSTERDAM, Holland: 48-foot steel ocean racer, pre-war. Auxiliary power was a small Graymarine "Four", Model FOUR-22.
2. GLOUCESTER, Mass.: 38-foot gill net fishing vessel, powered with a 2-cylinder Graymarine Diesel.
3. KETCHIKAN, Alaska: 50-foot cannery tender. Gray Model SIX-121 gasoline engine with 5:1 reduction gear. 40" x 30" wheel.
4. ACAPULCO, Mexico: 36-foot sport fisherman, with Gray Model SIX-121 on direct drive. Top speed 17 mph; cruising 12 mph.
5. SANDUSKY, Ohio: 21-foot Lyman utility, fast pre-war model powered with a Gray "Super Six", 330 cubic inch piston displacement, 145 h.p.
6. GASCONADE, Missouri: 42-foot welded steel river tug, one of several built for the U. S. Engineers. Standard 6-cyl. Graymarine Diesel, 2:1 reduction gear.

Gray Builds All These:

Workboat Engines for Workboats
Auxiliary Engines for Auxiliaries
Cruiser Engines for Cruisers
High Speed Engines for Fast Boats

Note how the versatility of these peacetime applications illustrates the full coverage of the Gray Line, high speed or slow speed, gasoline or Diesel.



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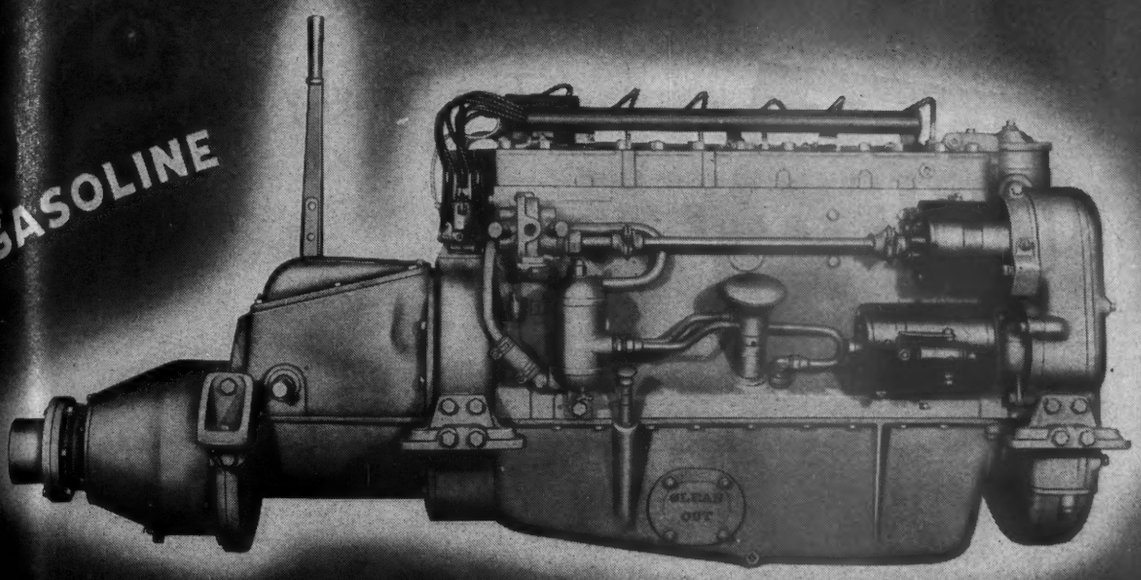
GASOLINE



Model SIX-121 with reduction gear, one of the Gray-marine gasoline engines in current production. Other models cover a range of propeller speeds from 400 to 4000 rpm. All have individual porting for smoothness.

are AVAILABLE RIGHT NOW!

We know that these engines which we are shipping today are the finest that Gray ever built. Not a single one of them is an old design. Alert to change, keeping abreast of new developments, sensitive to new trends in the marine field, pioneering, Gray has kept its line of engines strictly up to date.

That is one reason why Gray has been the foremost supplier of marine engines to the U. S. Army and Navy in World War II. The armed forces have used them in quantities now totalling over 11 million horsepower, approximating 24 times what the entire inboard marine industry used, of all makes put together, in an average peacetime year.

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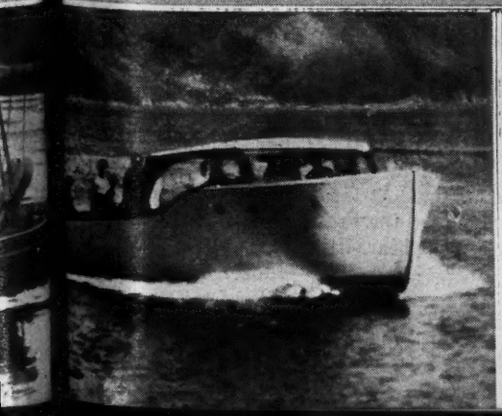
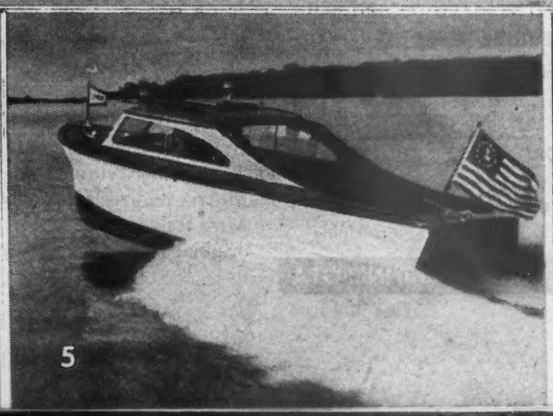
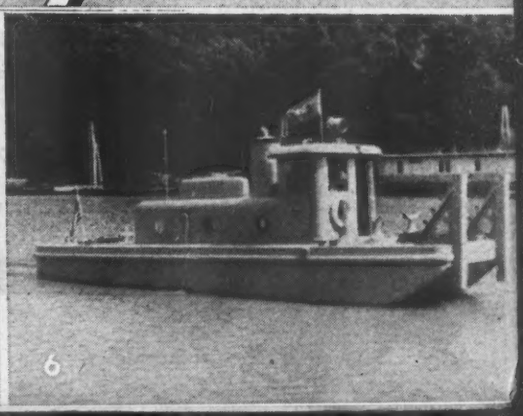
GRAY
MARINE MOTORS
GASOLINE
DIESEL

Awarded Four Times To Date

For information, ask for the Gray Data Book, 48 pages containing specifications on all models and useful tables of propeller sizes.







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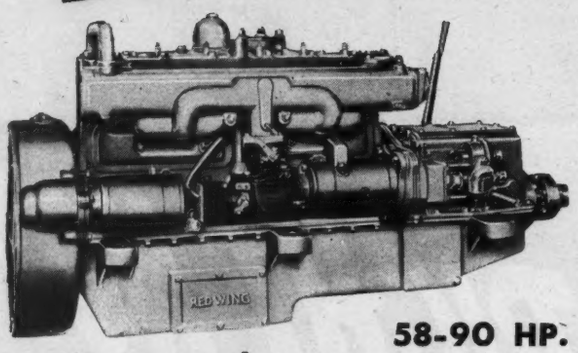
THE ARISTOCRAT OF CRUISER ENGINES



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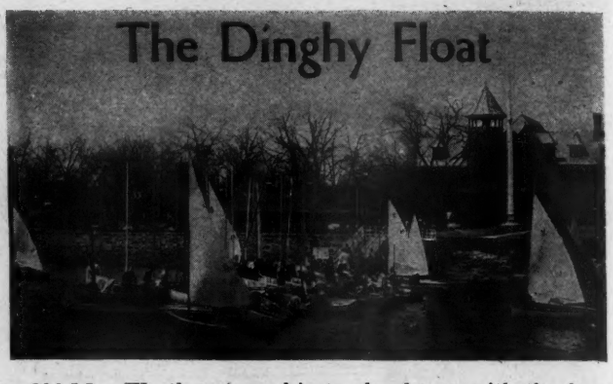
The Dinghy Float



▶ Old Man Weather stepped in to play havoc with the fourteenth anniversary of the "Pneumonia Derby," known as the Frostbite Regatta, held each year at the Manhasset Bay Y. C., Port Washington, L. I., as a fond farewell to the old year and a welcome to the new. Inclement weather held the planned two-day meet to a one-day affair and only three races were sailed of the fifteen scheduled.

In the two sessions sailed on Sunday, December 31st — one in the morning and the other in the afternoon — Larchmont skippers demonstrated their current superiority over the Manhasset Bay contingent. Larchmont took all three top places, Arthur Knapp and his *Harvey* leading with 81 points. Ed Raymond, of Noroton, Conn., was second with his *Zotom*, scoring 77 points, and Alton O'Brien sailed his *Frappe* into third place with 76. Howard Seymour, of the Manhasset Bay fleet, came up with the fourth prize to lead the home skippers with his *Spice*. The large turnout of 28 craft speaks well for the continuation of winter dinghy racing along the shores of Long Island Sound. Clinton Bell, Larchmont's dinghy chairman, and Wade Woodworth deserve much credit for their efforts in towing over 19 boats.

On Sunday it was tantalizing sailing throughout the afternoon. One boat would get into a good position only to run out of air and stop; while another, with just a breath in her canvas, would come up from nowhere to take command. On Monday, New Year's Day, that old devil of the clouds — wind — blew out any chance of racing that day. The sea, flattened by a driving rain, would not in itself have made temporary landlubbers of the hardy Frostbiters, but a southeast wind that piped up to more than 40 miles per hour did the trick, and no boats could be launched. Thus the winners were declared from the standings on Sunday, Knapp taking first prize, Ed Raymond second, Alton O'Brien third and Howard Seymour fourth.

▶ The annual meeting of the Frostbite Club was held Monday afternoon after the races were called off, and the new Vanderbilt racing rules were given a thorough airing. During a two-hour discussion on these new rules, under which the dinghy races are being held this winter, it was pointed out that neither the skippers nor the race committees of the two clubs knew enough about them to pass judgment. Ed Raymond introduced a motion to toss out the new set of rules and to sail under the old YRA book. Following the long session of windjamming on pros and cons of the Vanderbilt rules, it was decided to continue with them so as to give them a fair trial.

Several good points were offered by opponents of the Vanderbilt rules, one of which was that they appeared to be made especially for a two-boat race and not for a large fleet where a great number of yachts converge on the mark at the same time. Another point was that race committees were not familiar with the rules and were loth to call a foul.

▶ Following the rules discussion, the annual election of officers was held. Glen McNary, of Manhasset Bay Y.C., was elected commodore; Clinton H. Bell, of Larchmont, vice commodore; George Hinman, of Manhasset, rear commodore and Skip Etchells, of Larchmont, fleet captain. Lt. Cmdr. William H. Taylor was retained as Admiral of the fleet and Cmdr. Ev Morris was reëlected vice admiral. At the end of the meeting, Mrs. William H. Taylor presented the Frostbite Y.C. with the original burgee, depicting a polar bear sitting on a cake of ice.

JACK RAMSAY

JAMES SESSIONS *paints his impression of Borg-Warner's Ingersoll plant at Kalamazoo. Here, where furnaces are made in peacetime, Borg-Warner-designed amphibian "Beachbusters" are now built by mass production methods.*

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Pressed Steel Car Company, Inc.

"As manufacturers of transportation equipment we are constantly alert for the new developments that mean advancement and progress. We look for factors of efficiency, safety and comfort, and any development that provides these factors is a definite step forward. It would seem that..."

"VIBRATOR POWER SUPPLIES MAKE A VITAL CONTRIBUTION TO PROGRESS"

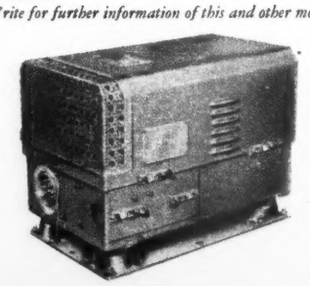
Mr. MacEnulty, Vibrator Power Supplies are truly contributing not only to the transportation industry but to many other industries as well. Wherever direct current must be changed in voltage, or to alternating current, for fluorescent lighting or other applications they have proved their advantages. They offer efficiency, versatility and economy in current conversion; and as they are now serving the armed forces with dependability, so in the electronic and electrical era of tomorrow, they will benefit many fields: Transit, railroad, aviation, marine, radio, electronic and electrical, and will have many individual applications within those fields for power outputs of up to 1000 watts.

Electronic Laboratories are pioneers in the field of vibrator conversion of current, and have developed many exclusive advantages in the heavy and light-duty power supply field. For radio telephone, aircraft radio, fluorescent lighting and electrical appliance operation and other specialized applications, Vibrator Power Supplies are the superior type of current conversion unit.... Consult with E-L engineers concerning your power supply problem.

E-L STANDARD POWER SUPPLY MODEL S-1050

Model S-1050 is a typical military model Vibrator Power Supply which may easily be adapted for peacetime mobile radio transmitters. Input voltage: 12 or 24 volts DC. Output voltage: 475 volts DC at 200 MA, 8 volts DC at 4.5 MA. Dimensions: 9½ x 8⅝ x 13 13/16 inches. Weight: 52 pounds.

Write for further information of this and other models.



Electronic LABORATORIES INC.
INDIANAPOLIS

VIBRATOR POWER SUPPLIES FOR LIGHTING, COMMUNICATIONS, AND ELECTRIC MOTOR OPERATION • ELECTRIC, ELECTRONIC AND OTHER EQUIPMENT

With the
UNITED STATES POWER SQUADRONS

THE ADVANCED GRADES TEACHING PROGRAM

▶ Once a man becomes a member of the USPS, he is encouraged to continue his education in matters concerning boats and allied interests. Two national committees handle the education of members, of which one, the Special Course Committee, is a relatively new unit which provides teaching material and examinations in subjects relatively new to the USPS. These are: signaling, motor mechanics, advanced seamanship and meteorology. The other and older committee is known as the Committee on Advanced Grades.

The heart of the educational program and the principal attraction which holds the interest of members of the USPS is that for which the Committee on Advanced Grades is held responsible. The constitution of the USPS provides for the election at its annual meeting of a chairman of the Committee on Advanced Grades. He is elected, rather than appointed, to free him somewhat from momentary pressures and to encourage him to set up and maintain a well-planned, fad-free educational program. The chairman appoints, with the approval of the governing board, three course committees. One handles the educational material for a thorough course in advanced piloting. A second committee administers a course in dead reckoning and allied subjects, while the third directs the teaching program in celestial navigation. These are not "streamlined," short term courses because it is the policy of the USPS to cover its subjects so thoroughly that any certificate of award which it confers means that its recipient really knows the subject.

To a small boatman in ordinary times the most important of the advanced grades taught is the Advanced Piloting (AP) course. It is the most important to him because it has the most immediate and practical application. He sails little, if at all, out of sight of land and hence a thorough knowledge of how to find his way about with certainty by the aid of landmarks, lighthouses, buoys, soundings, etc., in either clear or thick weather, is of great immediate importance. He is carefully taught how to handle compass errors and leeway under all conditions and how to find these errors. The use of all aids to navigation, including radio signals from light stations and buoys is covered, and the proper use of the *Tide and Current Tables*, *Coast Pilots*, all types of charts and other government publications is taught him. The methods of allowing for currents, how to take and interpret soundings, the various recognized practices of piloting, fixing position by bearings, angles and soundings, and plotting these on the chart are all taught during the course. The student learns in detail the mechanics of solving all the types of problems met under any conditions of coastal piloting and he learns it in such a manner that he can readily apply his knowledge to his own cruising.

The dead reckoning course is called the Junior Navigator, or JN course, because it covers rather more than dead reckoning and because it leads to the Navigator course, which covers celestial navigation. In the JN course are taught logarithms and trigonometry sufficient to handle the problems of the course, and all the sailings, viz. plane, parallel, middle latitude, mercator, traverse, great circle and composite. The student is also shown how to find the course of the ship by these sailings and to ascertain her position, both by plotting and by computation. But that is not all. To round out the course as well as the students, work is given in chart construction, the making of small area plotting sheets, zone time and its use, and plotting the results of celestial observations given the students to establish lines of position or a fix. Also, there is discussion of winds, weather, ocean currents, ice and the use of Hydrographic Office pilot charts.

LEWIS H. JOHNSON, N.

(To be continued)

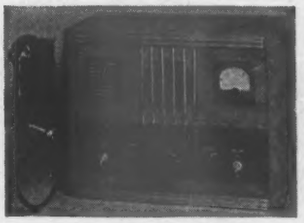
MAKE THE BETTER DAYS AHEAD
Completely Carefree . . .

with a **HARVEY**
MARINE RADIO TELEPHONE

Don't let doubts about how things are going at home and office creep into your mind and spoil your postwar pleasure trips. Install a HARVEY Marine Radio Telephone and if you're fretting about anything, call up and clear your mind. You'll have a lot more fun knowing you can keep in close contact with home and business.

You'll sail in greater safety, too. With a HARVEY Marine Radio Telephone aboard you can get in touch with the Coast Guard or other boats in use of emergency or heavy going. Then, too, you can switch from Marine Band to Standard Broadcast frequencies and pick up your favorite dance bands or other programs.

Send for the HARVEY Marine Radio Telephone folder. It describes in detail the various models that will help to make your future trips more fun.



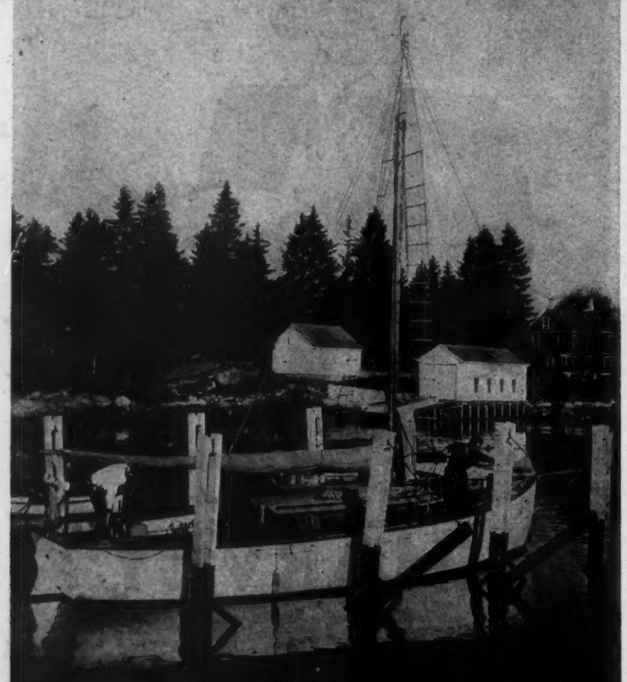
THE MARINE 25

A 6-channel radio telephone with a special noise balancer to keep motor and electrical appliance interference to a minimum. Six transmitting and receiving frequencies permit a wide choice of stations. Overall dimensions 19" wide, 12" high and 9½" deep.

HARVEY
OF CAMBRIDGE

HARVEY RADIO LABORATORIES, INC.
453 CONCORD AVENUE • CAMBRIDGE 38, MASS.

Let's talk over plans to
Re-condition
Your Boat...



IF YOU want to get your boat back in the water, *when* you want it, let's talk over plans now. We have the facilities to do a complete job from re-designing, right on through every type of re-conditioning, in wood or steel. But time is something else again. Let's get going.

FRANK L.
SAMPLE, JR., Inc.
Shipbuilders
BOOTHBAY HARBOR, MAINE

Complete Modern Facilities for Designing, Building, Storing and Reconditioning Yachts and Commercial Vessels up to 200 feet.

★

Members of: Maine Boatbuilders & Repairers Assn., and Atlantic Coast Boat Builders & Repairers Assn., Inc.

SAILING IN SOUTH AFRICA

(Continued from page 34)

had found a "peach" of a boat and would I agree to go half shares with him as before. Of course, I agreed and thus became part owner of a 30-foot cutter moored at Kalk Bay Harbor, False Bay, Cape Province, before I even left Johannesburg.

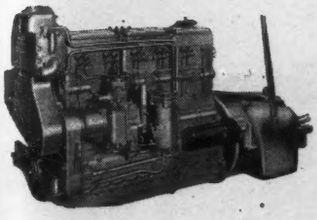
It was a grand feeling to step aboard one's own 30-footer. She was renamed *Moby Dick II*, and I liked her immediately. Her dimensions are: deck length, 30 feet; beam, 9 feet; draft, 5½ feet; tonnage, 8½ tons. Below is a roomy main cabin with two bunks, while the forecastle holds sails, running rigging, tools, paints, odd gear and a w.c. In wartime, we were extremely lucky to get a brand new Swedish marine engine, a Solo, which we installed aft under the cockpit (quite a job for a couple of amateurs). We also needed a new mainsail and decided to change the rig from a topsail and gaff mainsail to the more convenient jib-headed rig. It's much safer, too, because sailing in these waters near the stormy Cape of Good Hope is no child's play.

False Bay is on the Indian Ocean side of the Cape Peninsula and is a treacherous expanse. Calms change to fierce southeasters that come all the way from the Antarctic, and the seas can be tremendous. I have never seen them worse anywhere but the North Atlantic. We came across the Bay in *Moby Dick II* a month ago and our double reefed mains'l was too much. The late Deneys Reitz in his last book, *No Outspan*, said, "The mouth of False Bay is 30 miles wide and, from the Cape of Good Hope to Cape Hangklip, it lies open to the great swells rolling in. It requires good seamanship to navigate its stormy reaches in an open boat." But *Moby Dick II* is a thoroughly reliable type of boat and I feel absolutely safe and at home aboard. She is of old-fashioned construction with a deep forefoot and a straight keel. She handles very well, takes her time in coming about but responds to the tiller nicely and sails well close-hauled. In a stiff breeze, we can outsail racing yachts of about the same size, but in a light breeze she is, of course, much slower. She is more comfortable than other boats her size because of her large cockpit and far-above-average roomy accommodations below. We are thinking of sailing her to Rio or the States after the war if both of us can take off enough time to do the trip. I think it could be done quite easily, as the reach across the southeast trades from Cape Town to Rio shouldn't take much more than a month at the outside.

Cape Town has had and still has quite a few keen yachtsmen. The Table Bay Yacht Club was founded in 1895, received its Royal Charter about 10 years later and thereafter changed its name to Royal Cape Yacht Club. Today the club has about 300 members and a fleet of about 70 craft, varying in size from 80 tons displacement to a popular class of one-design 14-foot sailing dinghies. Some of the keenest racing in Table Bay was supplied by these 14-footers, which were designed by the well-known English designer Linton Hope. In Class A, the club has about 15 excellent seagoing craft, between 10 and 20 tons (some larger), which are capable of undertaking extended coastal cruises, and six or seven of which could safely accomplish long deep-water passages. In times of peace, the club organized ocean races and the 130-mile race to Saldanha Bay and back always met with enthusiastic response by practically the entire fleet of larger craft.

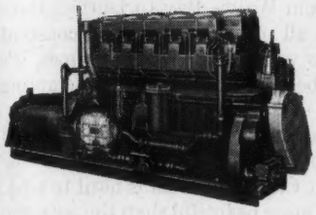
Before the war, inter-port racing got started between the Royal Cape and the Royal Natal Yacht Club in Durban. Races were for the Lipton Cup, a handsome trophy presented by the late Sir Thomas Lipton. A class of 16-foot one-design dinghies also got under way some 15 years ago for racing between the Royal Cape, Royal Natal, the Swartkops Yacht Club in Port Elizabeth, and the Germiston Yacht Club in the Transvaal.

Sailing in Table Bay, which is on the Atlantic side, is just as tough a proposition as in False Bay. Weather conditions in and around these two bays are nothing to write home about, and vastly different from anything to which most yachtsmen are used. But Cape Towners can take it. The average sailing day in Table Bay is much stormier than in most other parts on the globe, and this must date back to the days of the famous Portuguese navigator Bartolomeo Diaz, who called this part of the world the "Cape of Storms." I've listened to many yarns of



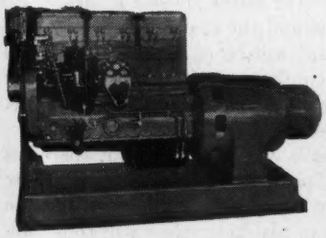
If you're "tired of tinkering," specify an HMR-600 Cummins Marine Diesel for your boat. This six-cylinder, 672 cu. in., 150 hp. diesel has a long record of proved performance in all types of heavy-duty marine service to attest to its rugged dependability . . . its superior flexibility . . . its easy, economical operation and maintenance.

☆ ☆ ☆

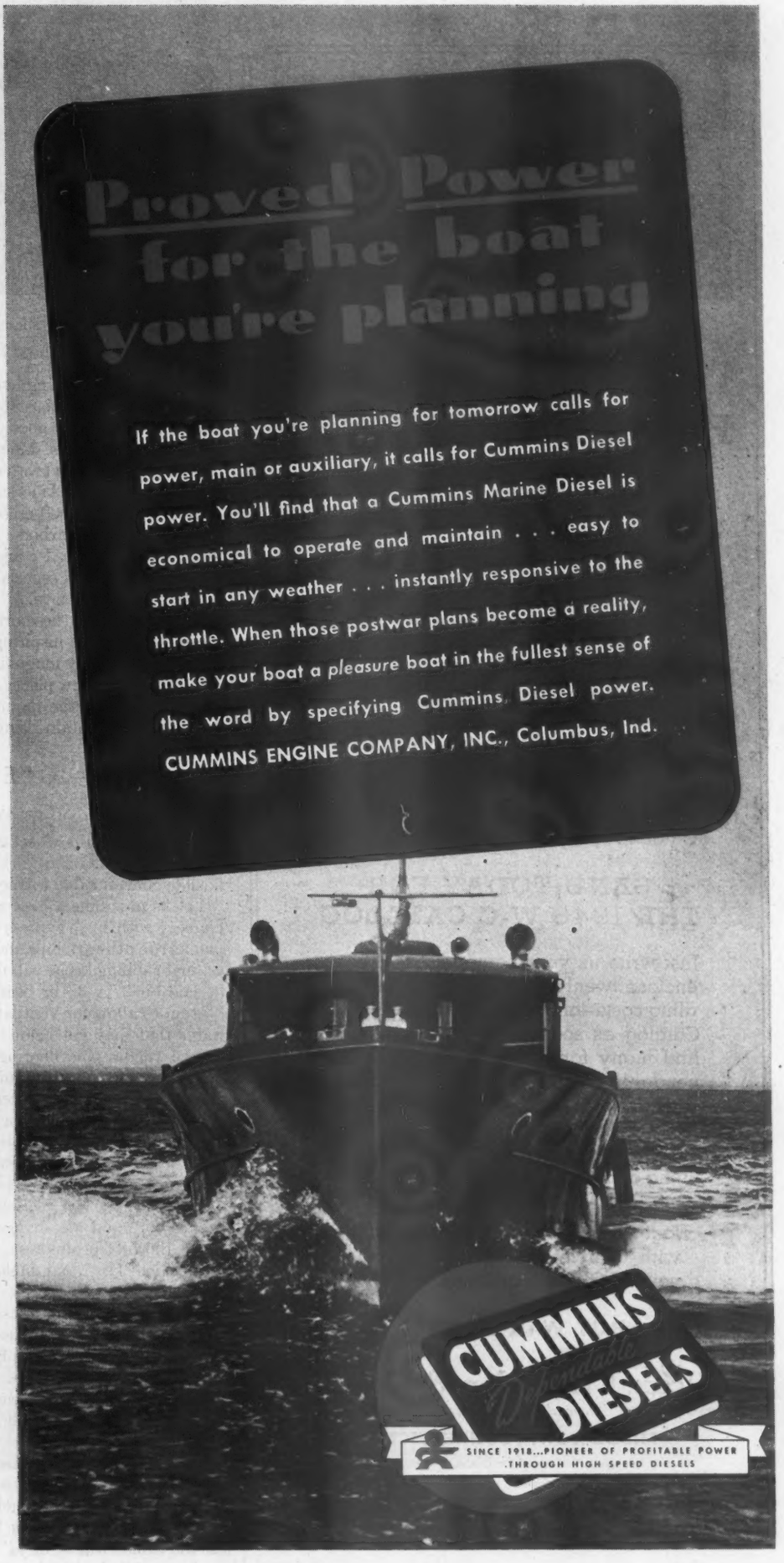


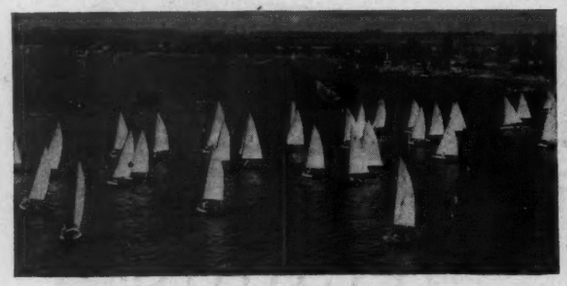
The Model LMR-600 Cummins Marine Diesel is a medium speed engine that will give you up to 250 hp. at 1000 rpm. Years of service in all sorts of marine applications have proved the fitness of this six-cylinder, 7″ x 10″ engine for any tough job you may give it, main or auxiliary propulsion service.

☆ ☆ ☆



For generating service as well as for propulsion power, you can rely on Cummins Marine Diesels for reliable, low-cost performance. Model HGA-601 (AC) and Model HGD-601 (DC) Cummins Marine Diesel Generating Sets are offered with two ratings: 35 kw. at 900 rpm., and 50 kw. at 1200 rpm. Other Marine Generating Sets are manufactured in a complete line of models ranging from 15 to 125 kw. capacity. Illustrated in the photo above is Model HGA-601.


Proved Power
for the boat
you're planning
If the boat you're planning for tomorrow calls for power, main or auxiliary, it calls for Cummins Diesel power. You'll find that a Cummins Marine Diesel is economical to operate and maintain . . . easy to start in any weather . . . instantly responsive to the throttle. When those postwar plans become a reality, make your boat a pleasure boat in the fullest sense of the word by specifying Cummins Diesel power.
CUMMINS ENGINE COMPANY, INC., Columbus, Ind.
CUMMINS
Dependable
DIESELS
SINCE 1918...PIONEER OF PROFITABLE POWER
THROUGH HIGH SPEED DIESELS



THE OLD

FAMILIAR FRIENDS

AND FACES

Let's finish the job of winning this war! But meanwhile, let's give a thought to the good boating days that will follow! Then the old familiar decks and harbors will seem real again—old friends will hail us—and again we'll know the old, old pleasures of sail and power.

Looking ahead to peace, we're ready to help you plan your post-war re-fitting—yes, we've prepared a 1945 (limited) edition of the old-time popular W-C Catalog.

SEND TODAY FOR THE 1945 W-C CATALOG

Just write us your name and address—enclose twenty-five cents to cover handling costs—and we'll send you our 1945 Catalog as soon as it's printed. You'll find many familiar items of W-C "Dependable" Marine Hardware—together with some pretty interesting new ones! And you'll have the Catalog in plenty of time to see your W-C dealer before fitting-out.

DEALERS—watch for our 1945 Catalog! You will receive it promptly, with complete information on the new W-C post-war items.

BUY WAR BONDS!

Wilcox, Crittenden & Co., Inc.

Manufacturers of "Dependable" Marine Equipment Since 1847

MIDDLETOWN, CONNECTICUT

Union of South Africa Information Bureau

A far cry from "darkest Africa." Sailing on Victoria Lake, Germiston, South Africa

3-reef races, of cruising competitions along harborless and forbidding stretches of coast, of amazing performances of endurance and just downright good skippering. Sailing, and cruising in particular, is always difficult in these parts owing to lack of harbors and sheltered waters. As an example, I'd like yachtsmen along our eastern American seaboard to consider that on a coastline of over 1500 miles from Walvis Bay to Durban there are only 10 safe harbors. It's all open ocean with a constant swell. For my part, I could do without the swell at times, it's a doggone nuisance, especially before breakfast when attempting to light a primus stove.

But, in spite of these drawbacks, sailing at the Cape is good clean fun, and the inspiring spectacle of the ever-varied scenic beauty of the truly magnificent Cape Peninsula is hard to beat. In all the world, few places are more beautiful than the entrance to Hout Bay, or the mountains of Cape Point, or Table Bay with Table Mountain rising 4,000 feet out of the sea.

"ESCAPE"

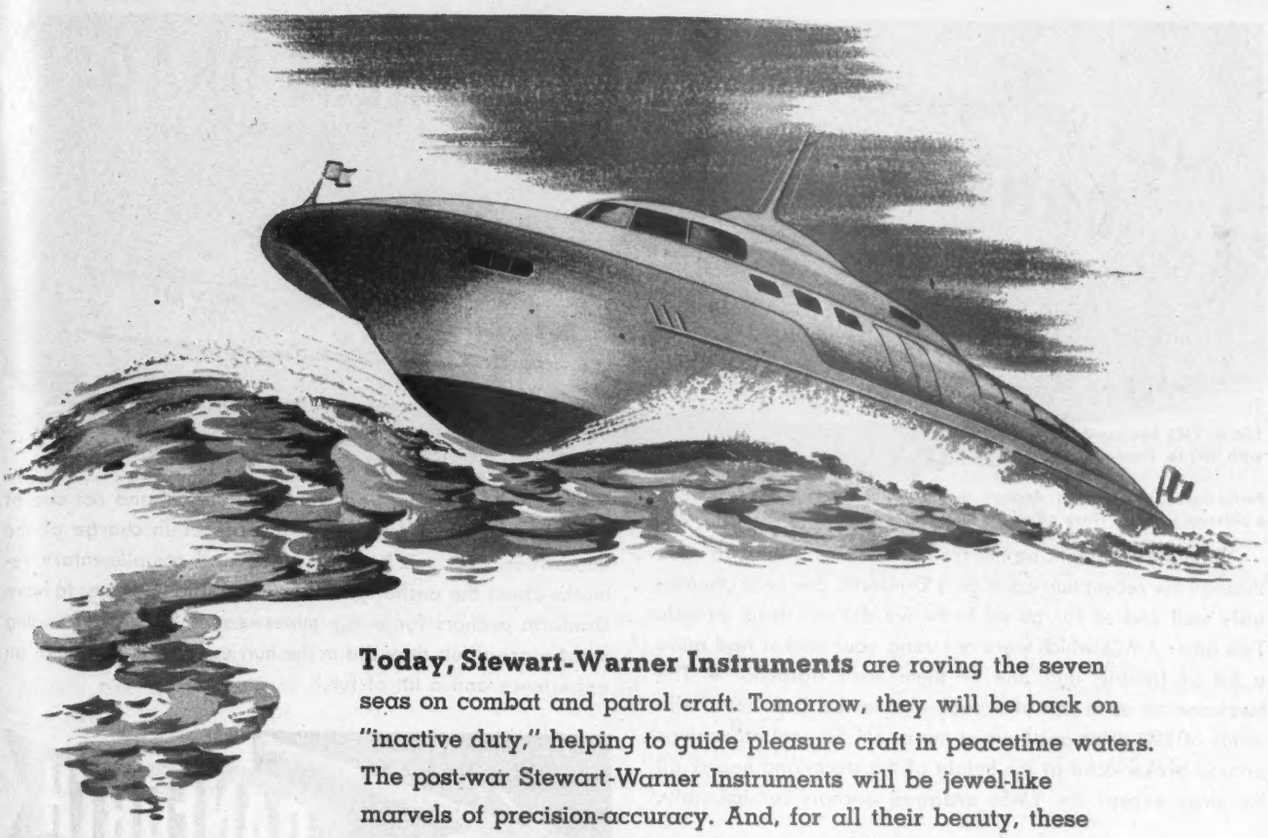
(Continued from page 58)

motor tiller. Or the wheel might be placed on top of the house, abaft the mast. In any case it will be necessary to provide a flexible control cable to the motor throttle.

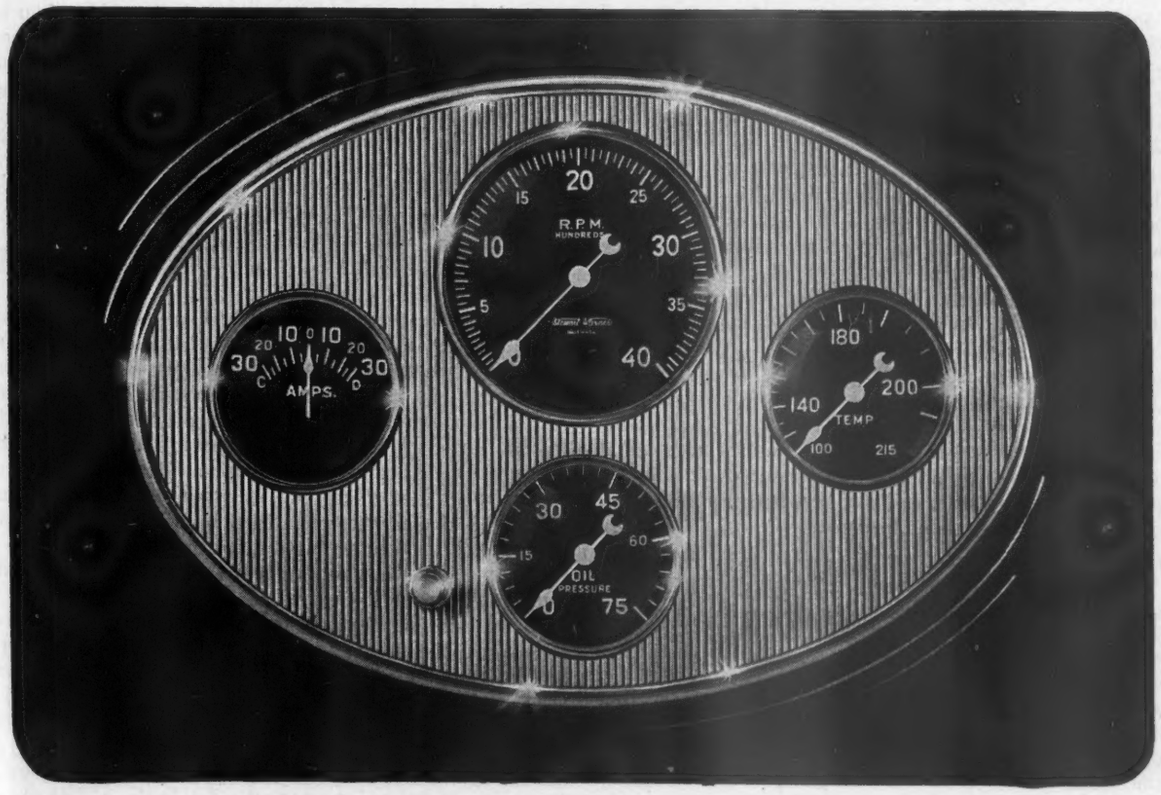
Let us now take a look at the construction. The hull will be planked with 1½" cypress or redwood. The bottom, where the planks run athwartships and are in turn supported by the longitudinal rubbing keels, will need no framing. The cabin floor will be laid on 2" x 3" fir beams (the latter spaced 1" above the bottom to allow for ventilation and the movement of any bilge water that may get below) and will be of regular tongue and groove yellow pine flooring, comb grain. The section of floor in the way of the water tank will be removable so that the tank may be got at in case of necessity.

Studding for the exterior walls will be 2" x 2" fir, spaced as the fenestration permits, but not over 18" on centers. These studs will extend to the chine which runs fore and aft at the junction of the side and bottom planking; they will thus form stiffeners for the side planking. The upper ends of the studs end against fore and aft stringers, as in house construction, upon which the roof beams rest. The latter will be of oak or yellow pine, sided 1½" and molded 3", spaced 12" clear between beams.

Siding for the cabin house will be 15/32" Homasote exterior board in one width from deck to cabin roof line. The cabin roof will be ¾" waterproof fir plywood, painted but not canvas covered. The interior walls of the main cabin will be faced with wood surfaced Homasote and the owner's quarters will be of the same finish. The galley will be sheathed in a material like Marlite or, possibly, Ludlite (stainless steel sheet) so that it can be kept clean and free of grease with a damp cloth. The stove and stove pipe are stainless steel as is the edging around the linoleum surfaced counter. Shelves and lockers in the galley will be of wood with an enamel or lacquer finish. The ceiling throughout the cabins will be of ⅛" Masonite with the spaces between the beams filled with glass wool, or similar insulating material.



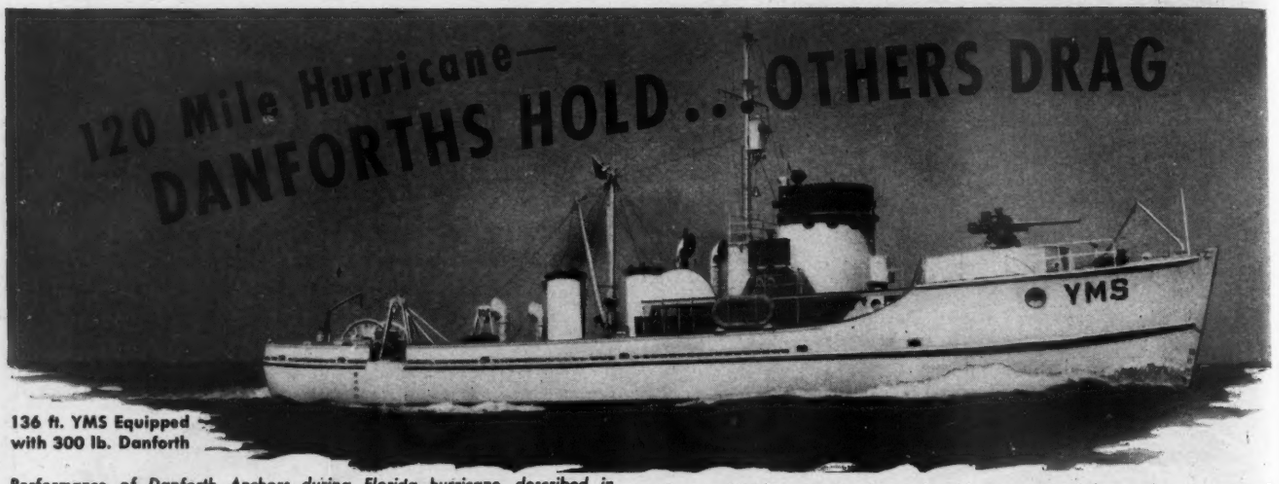
Today, Stewart-Warner Instruments are roving the seven seas on combat and patrol craft. Tomorrow, they will be back on "inactive duty," helping to guide pleasure craft in peacetime waters. The post-war Stewart-Warner Instruments will be jewel-like marvels of precision-accuracy. And, for all their beauty, these instruments will have the ruggedness and dependability you want and need for safe operation. So, mark this down for future reference—"look for something extraordinary in tomorrow's marine instruments by Stewart-Warner."



STEWART-WARNER CORPORATION

1837 Diversey Parkway, Chicago 14, Illinois

Another Product of STEWART WARNER



136 ft. YMS Equipped with 300 lb. Danforth

Performance of Danforth Anchors during Florida hurricane described in a personal letter by Navy officer on an AMC minesweeper:

"Thought you might be interested in learning that we rode through the recent hurricane on a Danforth. She held remarkably well and so far as we know we did not drag an inch. Two other AMCs which were not using your anchor had quite a lot of trouble and one of them went aground. • The hurricane hit us in the afternoon and lasted four hours with winds of 120 miles per hour at the peak. Several other ships around broke loose at the height of the storm and nearly all the ships except the YMSs dragged anchors considerably. Every YMS was equipped with your anchor and not one of them had a bit of trouble. • The officer in charge of the minesweep task unit here made several complimentary remarks about the anchor yesterday and said he hopes to have Danforth anchors for every minesweeper here after seeing what a great job they did in the hurricane. • It was quite an experience and a lot of fun."

Danforth Anchors protected by U. S. and Foreign Patents

For free folder, write . . .

R. S. DANFORTH • 2121 Allston Way • Berkeley 4, Calif.

This type of construction should be comparatively inexpensive and also be both warm in cold weather and cool when the sun beats down.

Reference to the drawing showing the section on the ship's center line will disclose that there is an open space between the heavy bow beam and the sheathing of the forward cockpit. This is to allow for a constant supply of fresh air in the bilge. If you will follow along the inside of the outer skin of the hull you will note that a space has been allowed for the passage of fresh air from bow to stern. The escape for the air will be through the two lockers in the after cockpit, whose bottoms will be made of slats and whose sides will be amply provided with ventilating louvres. Provision has thus been made to assure a sweet bilge. As a precaution, all lumber will be treated with one of the copper naphthanate preservatives, like Cuprinol. This has been found to be well worth while as a rot preventive. Fastenings will be galvanized iron boat nails and all nails used for interior trim should also be galvanized.

This, in brief, is the description of a small floating home which, on the sheltered waters of bay, river, lake or canal, should provide the essentials of comfort for two persons, with room for a couple of occasional guests, and spell freedom from the cares and conventions of a shorebound existence.

BOUND SOUTH IN WARTIME

(Continued from page 60)

in wonderful patterns. They must be tireless beasts and seem to have wonderful spirits, because they turned, leaped, zigzagged and cavorted for hours. Their wakes were easily traceable, since their trails were etched with phosphorus. The rest of that night and the next day continued fresh, and we were making knots toward our destination.

The following night we ran into our first real trouble, in the form of squalls. As it grew dark we could see lightning over the land, which was about 75 miles to the west of us. We carried full sail for a while but knew that squalls would come out to us when the land cooled, so we decided to douse the jib. While the *Vixen* lay at Baltimore we had noticed that she was about four inches low in the water at the bow. We had attributed this to her large spar, but had later found that she carried an amazing amount of heavy chain in the bilges forward of the mast. This weight was augmented by four 18-volt batteries and lots of sails in the fore peak, which combined to make her terrifically down by the head and sluggish on the rise. The result was that when Jim and I got out on the bowsprit to stow the jib we were buried under green water at nearly every plunge, necessitating one and a half hands for ourselves, which did not leave much for the ship. The jib got hopelessly out of control and became fouled in the port bowsprit shroud.

We secured the jib hurriedly and, as the sky was rapidly becoming overcast, we made great haste and lowered the main, lashed it down and got the jib cleared just as the squall hit. It must have piped about 50 m.p.h. and we hove to under the staysail, which worked fairly well, except that the ship tended to fall off a little too far. Once she began to roll in the trough, the momentum of the 90-foot spar became terrific and the decks were nearly rolled under. We strapped the staysail down and lashed the helm hard down until she began to work a bit to windward, and after that she went along smoothly. Later the wind moderated somewhat and we bent the trysail and the next day put in at Brunswick, Georgia.

An amusing incident occurred as we entered the harbor at Brunswick. We did not know it at the time, but Morehead City had informed all patrol craft and recognition stations that we were coming, so the men at Brunswick figured they could have a little fun with us. We were flying our international code and when we were challenged, hoisted the reply the Navy had given us. The shore station made another hoist, and while we were frantically thumbing through the pages of our code book to read it, they lowered it and made another. By this time we were thoroughly confused and a bit worried, so we just circled around until a man came down the beach and began to signal us in semaphore, which none of us could read. We replied with

Chemold* SPEED BOATS

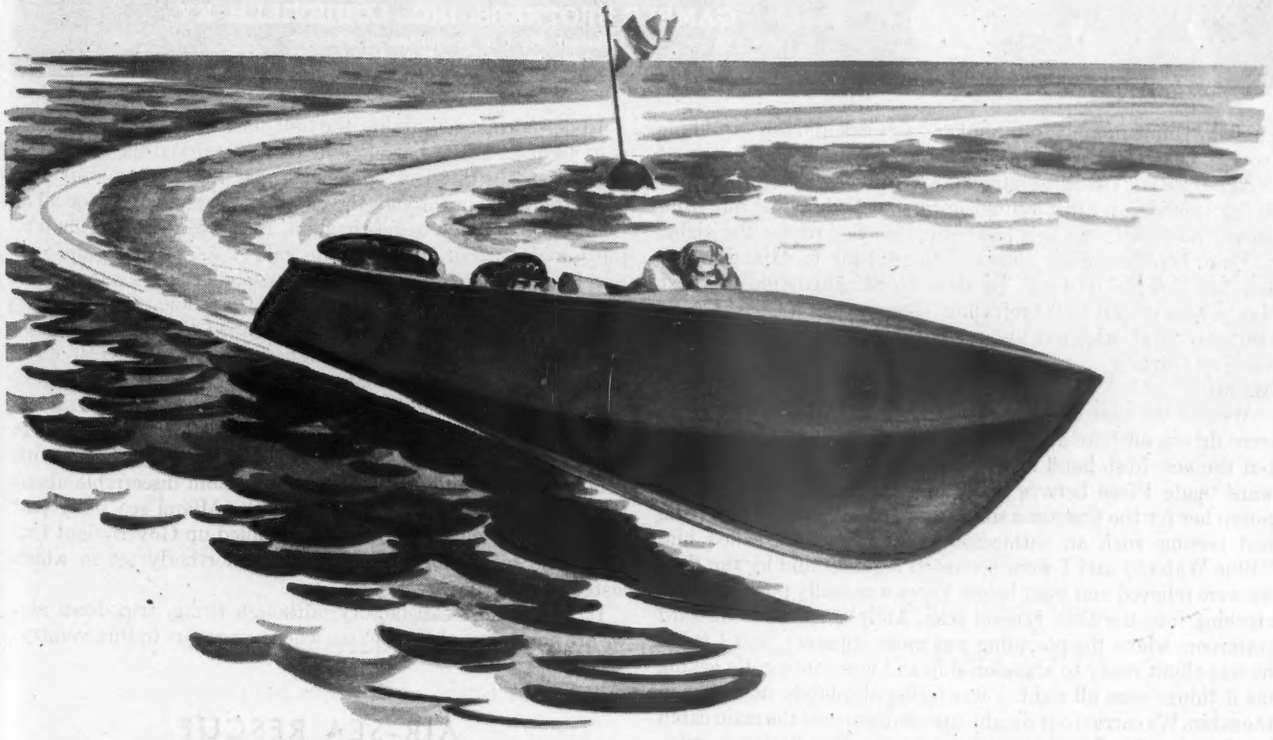
Thrills galore in this Chemold plastic speed boat. Slim, sleek, clean lines give it *dash* and *speed; built-in* buoyancy provides *safety* (it's non-sinkable). This 12′ craft, while not designed as a top racing boat, gives an excellent account of itself in fast company. For those who want speed, with safety—this is it.

This boat, as with all Chemold plastic boats, has a *one-piece* Chemold hull which means no seams to open, no caulking, no leaking. Chemold neither warps nor waterlogs. Because Chemold hulls will not absorb water, this boat will stay 20% to 33⅓% lighter than comparable wood constructed craft. Comfort, too, has not been overlooked—a form fitting, Chemold plastic seat provides easy riding for passengers.

Would you like to own this boat? Read below about Chemold Company's unique Priority Plan.

•

Among other Chemold Company boats are the family fishing boat, outboard runabout, kyak, canoe, convertible cruiser, duck boat, shore boat, dinghy, top-o-car boat.



"CHEMOLD MEANS CHEMISTRY MOLDED"

*Trademark Registered U.S. Pat. Off.

PRIORITY PURCHASING PLAN—The Chemold Company has a Priority Purchasing Plan for boating fans. If you are genuinely interested and sincere in your plan to purchase any Chemold boat, write today and ask for your priority certificate, *specifying type of boat you want.* This carries a number representing your position in the sequence of orders received. No deposit necessary. Early action is desirable.

CHEMOLD COMPANY
PRIORITY CERTIFICATE

CHEMOLD

Buy War Bonds

CHEMOLD COMPANY
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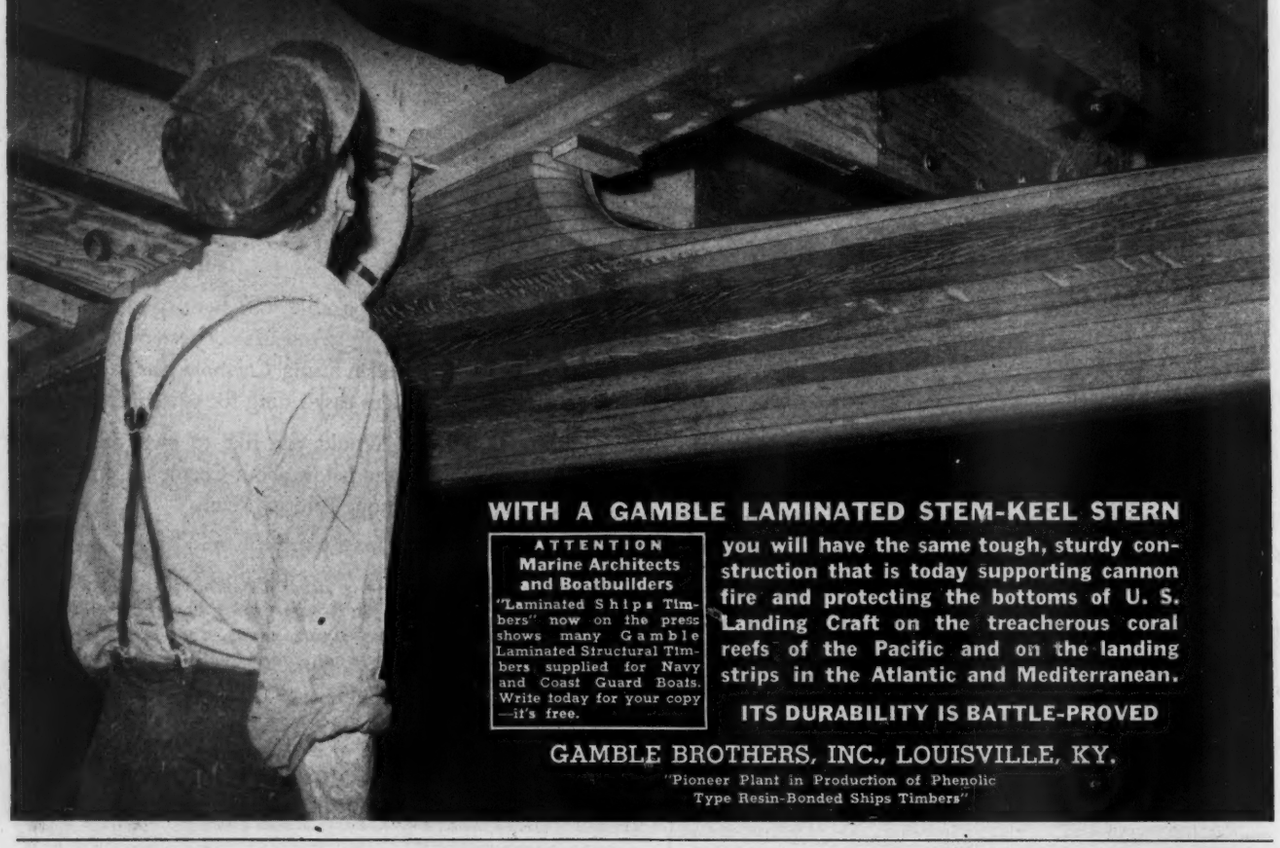
4407 SAN FERNANDO ROAD, GLENDALE 4, CALIF.

WHEN YOU BUILD YOUR BOAT OF TOMORROW



WITH A GAMBLE LAMINATED STEM-KEEL STERN

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blinker. Unfortunately, our blinker was weak and our technique poor, so that was no solution. About this time a picket boat chugged by and paid absolutely no attention to us, so we stopped being worried and just waited until somebody came out from shore and took us up to a base where we tied up for the night.

From here one of our crew had to get back to Miami, which left but three of us to go on alone to St. Augustine the next day, where we put in for refueling. Here we met a Coast Guard lieutenant (jg), who was also a sailing enthusiast and, since he was just starting on a leave, he and his wife shipped with us for Miami.

We left the next day and put in another bad night when we were driven offshore and got badly laced bucking the Stream, but the new fresh hand really helped. Again the weight up forward made *Vixen* behave badly and the next day we had to pump her for the first time since leaving Baltimore. Andy (who had become such an enthusiast by now that we called him "Blue Water") and I were on watch together and by the time we were relieved and went below *Vixen* was really pounding and crashing into the Gulf Stream seas. Andy was in the forward stateroom where the pounding was more apparent, and I think he was about ready to abandon ship and was continually asking me if things were all right. I was faring absolutely no better in the cabin. We carried our dinghy upside down over the main cabin hatch and as it had kept the water out we had left the hatch open, both to windward and leeward, for ventilation. However, just after I had removed my wet clothes and rolled up in a dry blanket, a sea broke over us driving green water back to the cockpit and it came pouring in under the dinghy and through the hatch, all over me. I closed the hatch hurriedly, dried off and spread a fresh blanket. We were heeling over at a sharp angle, so I was sleeping half on the bunk and half on the side when another large sea hit us and the water in the bilge sloshed up and out of the louvres, completely drenching me from the other direction. I got up, dressed, put on my oilers and life preserver (everybody on board had to wear a life preserver while on deck at night), and spent the rest of my watch below curled up in the cockpit.

Under normal conditions, the hull does not leak and the deck is as tight as an oil barrel. When she is worked hard, the tall spar opens up the deck somewhat, but the great majority of the water came in through the hatches. We had covers for all of them but had failed to get them on, and water was pouring into the forward cabin hatch by the galley. As a whole, she is a wonderfully tight craft and took on mighty little water, as is testified by only a single pumping for the whole trip.

The next day we tacked inshore to Cape Canaveral, where we picked up a moderate easterly and had an easy sail the rest of the day and night, but did not make any great headway. Next morning, the wind hauled to the SE, and when off Ft. Lauderdale we set a genoa and really made knots down to Miami. It was a beautiful run; we kept about 200 yards off the beach with people ashore plainly visible and the bottom discernible about three fathoms below us. We raised the Miami sea buoy just about 12 days out of Baltimore and sailed up Government Cut and came to anchor just as a strong northerly set in which lasted for four days.

It was a most satisfactory, although tiring, trip down and we are now living aboard *Vixen* whenever we are in this country.

AIR-SEA RESCUE

(Continued from page 41)

Shortly before Pearl Harbor the PAA fleet consisted of approximately 75 craft of varying sizes. They were located, in the main, in "foreign" ports: the West Indies, Pearl Harbor, Hong Kong, New Zealand, Lisbon and the Belgian Congo. It was at Pearl Harbor that two "ships" of the fleet, *Panair XP* and *Panair XXP*, covered themselves with glory on the never to be forgotten date of December 7th, 1941. Both boats, manned by their own crews, were among the first craft to engage in fire-fighting operations, and their personnel was later commended by the Navy for their "meritorious handling of effective fire-fighting equipment."

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UNDER THE LEE OF THE LONGBOAT

(Continued from page 30)

appeared in the middle of the road close aboard and, when I had identified it as the west end of an ox going east and had successfully avoided it, my enlisted friend said: "Hogs is the worst things to hit with a car. They're solid and their hides are slippery. If you hit 'em with a front wheel the car rolls over and over, so the thing to do if you can't avoid one of them is straddle it between your front wheels. Then the front end of the car rises over it and then the rear end does the same and you stay on the road with no harm done." Except, of course, to the hog.

Lee Platt, who is now an ensign in the Coast Guard, and who used to sail out of Oyster Bay, tells a story that belongs in the archives. (He'll probably upbraid me for ruining it by cutting it to the bone but, with space at a premium, I'm going to abridge his amusing build-up and come directly to his even more amusing point.) A schooner yacht, enrolled in the Coast Guard Reserve and commanded by a chief boatswain's mate, was sent to a naval base for alterations and in due time (a couple of weeks) was visited by a double handful of gold lace, a lieutenant commander and three lesser officers.

"Chief," said the two-and-a-half-striper, stepping aboard and ruffling a handful of papers, "we're going to fit you for depth charges."

The chief gulped, saying quietly and with due reverence: "But, Commander, we only make eight knots under sail under ideal conditions. Isn't a minimum speed of 15 knots required for dropping depth charges?"

According to Platt, a slight frown furrowed the lieutenant commander's majestic brow and he asked, slowly, in the tone of voice used with backward children: "Chief, what does your vessel make under power?"

"Six knots, sir," replied the chief.

"Ah," said the lieutenant commander with lofty scorn as he gathered his entourage and departed for more important duties, "six knots under power and eight under sail makes 14 knots. Plenty of speed for ash cans."

A cheerfuller story of naval life concludes my monthly output. In our camp there are seven Filipino mess boys or, as they are now called, steward's mates. Amiable, silent, hard-working sailors. On the day the news came of our invasion of the Philippines, these seven boys chipped in and, with the camp commander's permission, bought a bottle of beer for every enlisted man in the activity. And served it with smiling gratification in the knowledge that their island country was about to be saved from the Japanese oppressors. That evening at dinner they offered every officer a cigar, also in acknowledgment of America's aid to their native land. There wasn't an officer or man in camp who didn't think the Filipinos' act the most gracious and kindly they had heard of in many a long day.

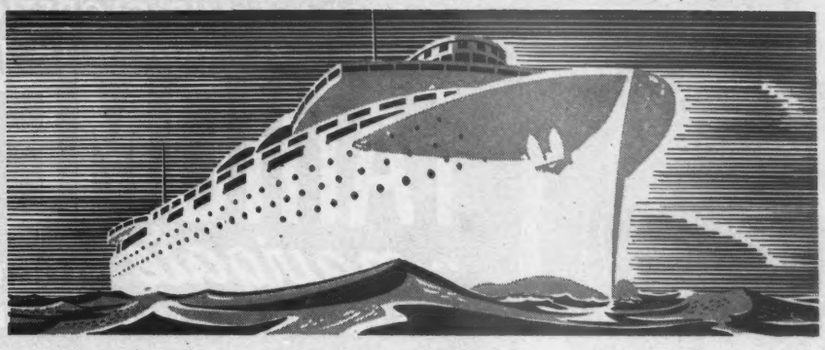
THE VOYAGE OF THE SCHOONER "DOLPHIN"

(Continued from page 50)

termined what his plans would be. Payne was a dull minded fellow and evidently did not realize that he was making it possible for Smith to steal the ship.

Samuel Comstock was killed February 17th and at ten o'clock that night all hands ashore were startled by a cry from the two men guarding the camp, "The ship has gone! The ship has gone!" Everyone ran to the beach. The moon was an hour above the horizon and shone clearly over the water. Some thought they saw the dim outline of the vessel well offshore. If so, she was soon out of sight.

When daylight came, the abandoned seamen were not the only ones on the island astonished to find the *Globe* gone. The natives began to appear in large numbers, jabbering loudly and making wild gesticulations that obviously demonstrated they were not pleased that the ship should have sailed away. Payne



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When the ship's engines have the cylinders treated with PORUS-KROME . . . *your ship comes in.* It is mighty important in marine engines to do everything possible to prevent the ship being held up for engine repairs far from home.

This is equally true when "your ship" is a bus . . . or a truck . . . or a farm tractor working the far forty. Reliability of engine performance, which assures that you will always get home, is most important.

PORUS-KROME, because of its peculiar characteristics, reduces scoring and scuffing and the risk of piston seizure to the absolute minimum. It not only adds to the reliability of the engine, but it multiplies the life of the cylinders from four to twenty times, thus greatly reducing costs of overhauling for cylinder repairs.

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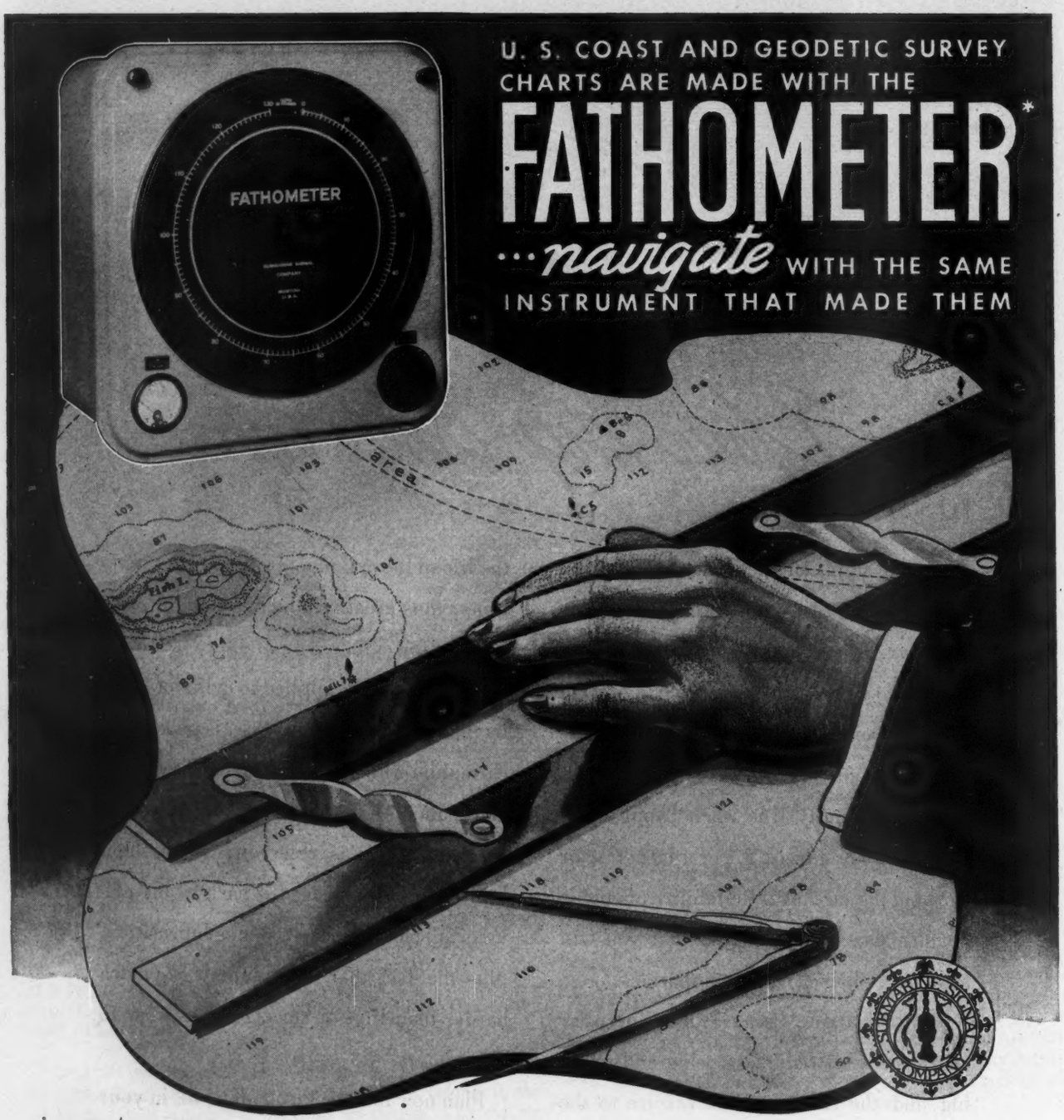

For years the U. S. Coast and Geodetic Survey has been charting sea-bottom contour and depths, aided by FATHOMETER soundings. Today tens of thousands of square miles of the ocean floor have been accurately surveyed by this instrument.

By day or by night, in clear or foggy weather, when you take echo soundings with the FATHOMETER and use U. S. Coast and Geodetic Survey charts, a knowledge of the vessel's position is generally assured.

Since the FATHOMETER was the instrument that made these charts, it is obviously the best instrument to use in navigating with them.

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Established 1901

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quieted them by making them understand through signs that she had accidentally broken away from her moorings and had been blown out to sea. "She will be lost and we shall never see her again," seemed to explain the circumstance satisfactorily and, like small children, they immediately lost interest in the ship.

A little before sundown the natives began to leave for their villages and Payne and John Oliver, the only two remaining men who had been partners in the mutiny, accompanied one of the chiefs. Next morning they returned, bringing with them two young native women. These women, they declared, were to be their wives, and from that day on only Oliver and Payne and their wives were allowed to occupy the large tent.

When Payne woke the following morning, he found his native woman had run away. He armed himself and set out to the nearest village. As soon as he came within gunshot range of the huts, he began to fire his gun and a pistol he had taken with him. The villagers ran out of their homes and he continued to fire, aiming above their heads. The natives were intimidated and Payne unceremoniously began to search their huts. He found his girl hiding, severely flogged her and took her back with him.

When Oliver saw Payne forcing the girl into his tent he became apprehensive. "We'll need a double watch tonight, Payne, after this," he said. "Oh no, Oliver. I've frightened them. They think we are white gods. They don't understand our firearms."

Payne was ignorantly certain of his safety and continued to abuse the natives. He accused them of stealing articles from the ship's supplies, then visited the villages and brought back cringing natives bound in irons. The blacks did fear the white men's guns but constant abuse harried them until they finally rebelled in concert.

One afternoon several hundred enraged and armed warriors, accompanied by their womenfolk, burst out of the woods and ran like charging animals toward the sailors' camp. Wild whoops and yells startled the men and, before they could defend themselves, the camp was surrounded by mad savages brandishing spiked war clubs and spears. The onrush was terrorizing. Each naked male had long black hair and a flowing beard — both blew over his shoulders as he ran. His black eyes were dilated and the features of his scarred face indicated a horrible fearlessness.

The American whalemen knew they were doomed and attempted to flee toward the water. But none of them escaped. The natives darted their spears with fatal accuracy and, as their victims fell, women crushed their skulls with great stones. The entire company, except Cyrus Hussey and William Lay, was massacred. Two old people in whose huts the young men had stayed when they had visited the villages, miraculously protected them during the fight.

After the carnage was over, these two survivors were taken back to the inland village and there they lived as adopted sons among the islanders until rescued by the *Dolphin*.

In a show of strength hardly visualized by Commander "Mad Jack" Percival, a 20th century American Navy is now storming the quiet coral reefs that thickly surrounded his ship 120 years ago. It is possible that some of the high explosives recently dropped on the Gilberts and Marshalls have unearthed the bones of the *Globe* mutineers to whiten still further in the sun.

A SEAGOING TESTING LABORATORY

(Continued from page 52)

boats to send out on patrol and the fleet consists of boats having many different types of rig — schooners, yawls, ketches, cutters, motor-sailers (ketch rig) and one brigantine. An over all length of 80 feet or thereabouts seems to be an ideal length for our patrol assignments. A vessel of that size combines several desirable qualities which fit in well for such service. She's reasonably comfortable in bad weather, has enough room below to stow the varied gear of a moderate sized crew, can stay on patrol for a considerable time and can perform her function about as well as a larger vessel and do it with fewer men and at less cost. We have two schooners of this size which have turned in remarkable records. One of them has put in over 9,000 hours on patrol, which would have been enough to take her around the

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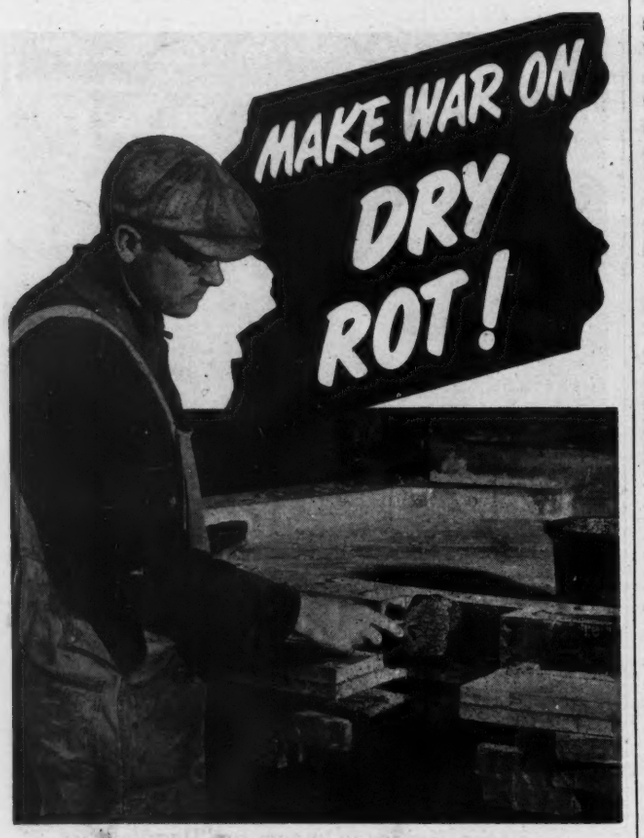

The proper use of INTERTOX WOOD PRESERVATIVE (Copper Naphthanate) will positively prevent dry rot. When a boat is building, before any paint priming has been done, is the time to do the job. The INTERTOX, applied with a brush or by dipping, will effectively seal the fibres against the moisture which carries the spores of mildew and dry rot. The metallic poisons of INTERTOX will likewise destroy eggs and larvae of wood eating insects. Used for the Army, Navy and Coast Guard.

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when the knife goes in

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AGENTS IN EVERY IMPORTANT PORT

world a couple of times if she'd held a course. Some of the smaller yawls and schooners have been out almost as long but they've been harder on their crews.

All of the yawls are in the smaller size group but there is an equal number of schooners of about the same length. The hulls and rigs of the yawls have stood up a bit better as on the average they are newer and in most cases were more expensively built. Also, most of them were designed with ocean racing in view while the schooners are more of the cruising type. It's pretty hard to make a direct comparison between these two rigs but the yawls seem to have one definite advantage. Being closer winded, they have a better chance to claw off in a hard onshore gale. This quality is not due entirely to the efficiency of their rigs but also to the fact that the hulls are somewhat narrower and that the ballast is greater in proportion to displacement, in addition to being, in most cases, a bit deeper. By the same token, they are definitely less easy in motion than the schooners and hence somewhat harder on the crews; there is relatively less room below for living and stowing gear. The yawls have a tendency to forereach when hove-to and, as a result, make less leeway. I'm not going to get involved in a discussion of the possible harmful effects of forereaching in a bad chance but I can say this much. Most of these boats—schooners, yawls, cutters and ketches—have been at sea in winds up to 75 miles or over and they're still working (that can be taken the other way too, in some cases). Also, and this has amazed me, they have successfully carried their storm canvas through such winds.

The motor-sailers have done their job well but they don't seem to have the ability to heave-to quite as well as the sail boats and are generally considered to be somewhat less able. The two ketches we have are so large that it's hard to compare them directly with anything else. One of them was built as a racer and is, even with her cut down rig, fast. The other is heavy and needs a fresh breeze to start her moving. One of the cutters is about the same size as the yawls. She could almost be called a sloop as her mast is not very far aft for a cutter and her rig is on the high side. She's done very well; but I think she might have been more suitable for the work rigged as a yawl. The other cutter is more true to type. The rig is well suited to her and the job and, although she is small, her record has been excellent.

All in all, I believe that the modern jib-headed rig has stood the gaff every bit as well as the old, and better in some particulars. I do feel, though, that in schooners of (let's say) 70 feet and over which are to keep the sea in bad weather, the gaff mainsail is better. It's snugger and can be carried a greater proportion of time than a jib-headed main.

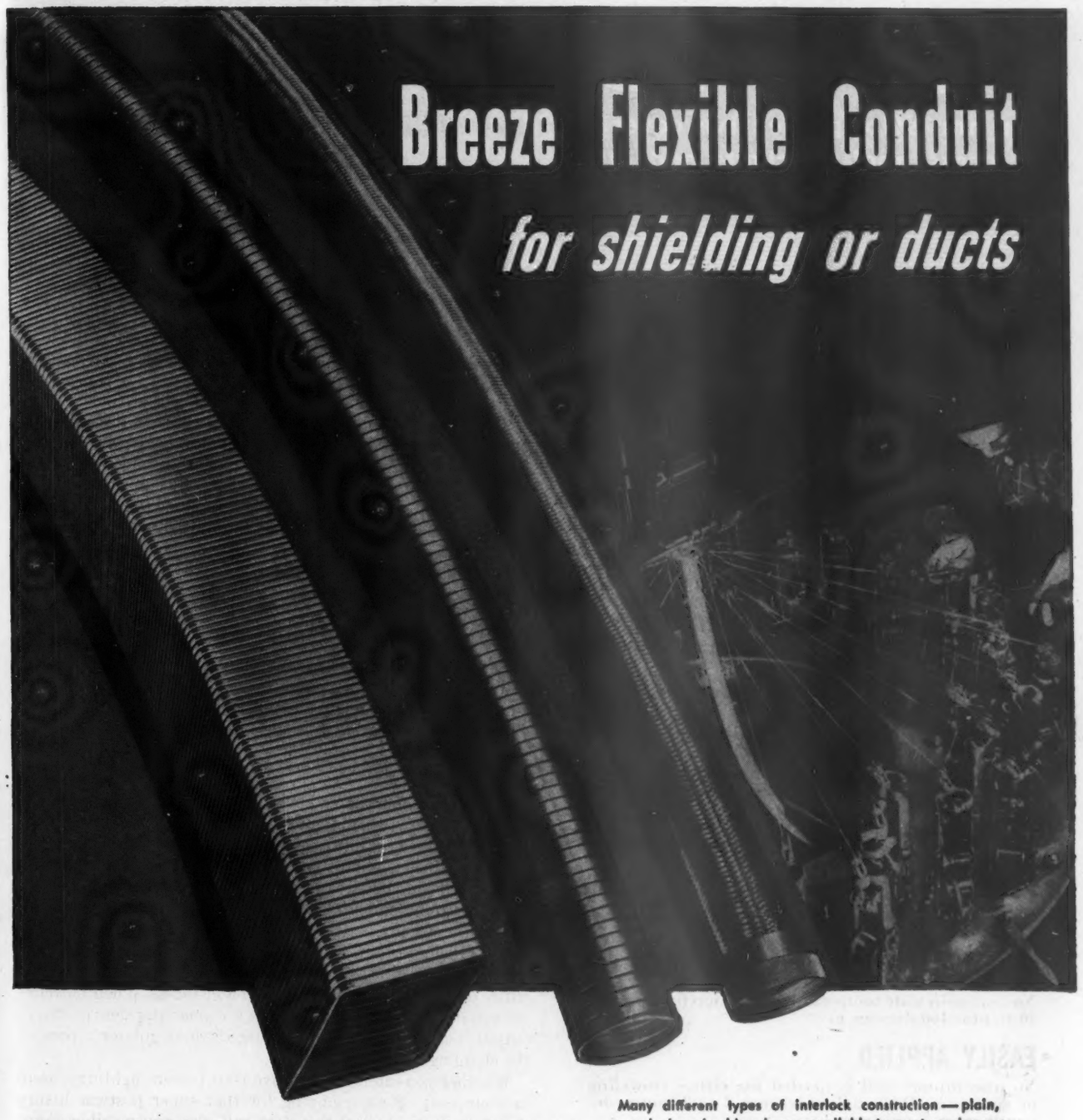
You can argue 'til the cows come home about the seagoing qualities of this boat or that, or why one may be a little more able than the next but, actually, the success or failure of any voyage is dependent on the skipper and his crew. There's hardly a vessel in this outfit which, at some time during her service, might not have been lost or in real trouble had it not been for the quality and resourcefulness of the men sailing her. That's one truth that has been proved beyond question right here at our base and my hat is very much off to the fellows who did the proving.

THE PROOF OF THE PUDDING

(Continued from page 62)

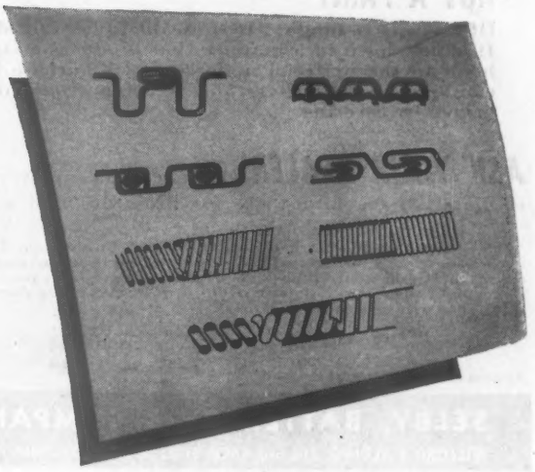
from an upkeep standpoint, the only thing that has to be done for spring commissioning is to put a coat of varnish on the spar and deck and chamois off the topsides and bottom — and she is ready to go!

We are most enthusiastic about the construction and consequently are planning and, in fact, building other models of sail and power boats of molded construction. As we said once before, it appears that this construction won't cost any more than the conventional type and, in some cases, possibly it will be a little less. Yet even if it cost the same and there are no still-to-be-discovered "bugs," it seems to us most worthwhile as, over the years, maintenance costs will be minimized and, as one of our enthusiastic boosters said, the inside of the boat is as easy to clean as wiping out your wash basin.

Breeze Flexible Conduit
for shielding or ducts

Breeze Flexible Tubing, manufactured in many diameters from a wide variety of metals, is used as ventilation and exhaust ducting in industrial, aircraft, marine and automotive applications. The same basic tubing, with the addition of a braided metal covering, becomes light-weight shielding conduit, used extensively for shielding ignition systems and any electrical circuit to insure dependable radio communication.

Manufactured from a continuous strip of metal, Breeze Flexible Tubing and Conduit can be furnished cut to length, with necessary end-fittings for any conduit installation.

Many different types of interlock construction — plain, packed, and soldered—are available to meet varying use requirements. A few of these are illustrated below.



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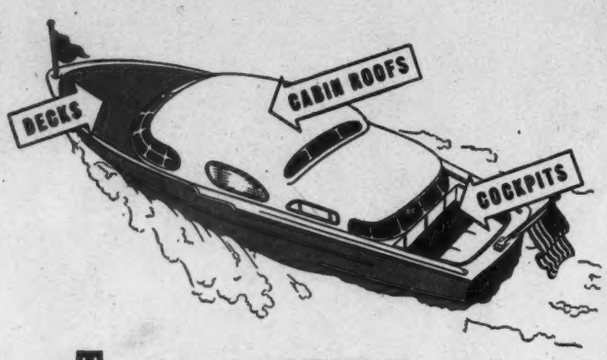
The non-slip, protective covering for decks, roofs, cockpits and other spaces where firm footing is helpful



Trowel or spray DEKTRED to a thickness of only 1/32 to 1/16 inch. The fluid sets to a tough film that adheres like all-get-out to wood, steel or canvas.

Trapped in the film are many fine particles which provide a non-slip surface—just the right amount of grip without being so rough as to be unsightly. Surface is actually more non-slip when wet than when dry.

•RESISTS OIL AND COMMON CHEMICALS

Not affected by grease, oil, mild acids, alkalies, sunlight or salt water.

•STAYS PUT IN HEAT AND COLD

No change in wide temperature variation from minus 40 to plus 160 degrees F.

•EASILY APPLIED

No uncommon skill is needed for either troweling or spraying. Drying time is from 2 to 8 hours, depending on conditions.

•NOT A PAINT

DEKTRED is tough. It is meant to be walked on. It is put down in a manner that produces a strong bond to the material under it. Its purpose is to combine safety with a long-wearing, continuous, protective covering.

***ASK YOUR DEALER*—if he cannot supply you immediately, have him write for literature and samples.**

***DEKTRED is a trade-mark of Goodyear Tire & Rubber Co. The product was developed for exposed decks and interior spaces of combat and cargo ships, and many thousands of gallons have been used in both small and large areas. Reports from owners and operators of small boats show how useful DEKTRED is.**

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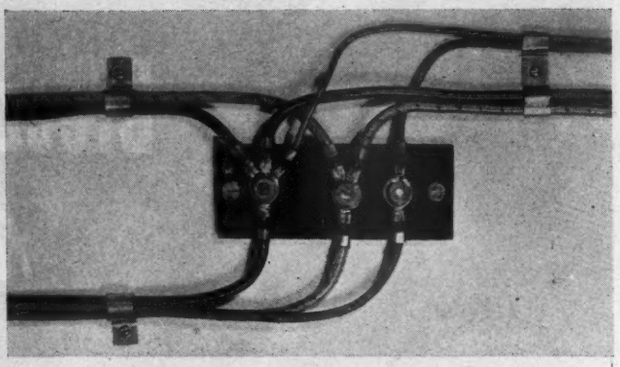
WILFORD BUILDING, 33rd and ARCH STREETS, PHILADELPHIA 4, PA.

BRIGHT LIGHTS

(Continued from page 55)



"Whenever a wire branches out into two or more paths, install a junction block. This can be made of Bakelite or Masonite"

Let's consider what battery capacity would be desired in the typical auxiliary sail boat. Unlike motor boats, an auxiliary engine is used only a fraction of the time while under way which is more of a problem than in a motor boat (unless a separate engine-driven generator is used). Let's assume that 60 watts are used an average of two hours per day for lights which amounts to 120 watt hours or 20 ampere hours per day. Furthermore, if this auxiliary sail boat has two 6-volt batteries, in parallel, of 240 ampere hours total capacity, it follows that lights could be used for approximately 12 days $\left(\frac{240}{20}=12\right)$ before recharging.

As for generators, let's assume there is a husky one capable of delivering 30 amperes, preferably the shunt wound type with current and voltage regulator. With an allowance of 80 per cent efficiency in the recharging cycle, approximately 10 hours of engine operation will be needed $\left(\frac{240}{30 \times 0.8}=10\right)$ to recharge the batteries. Ten hours spread over twelve days is an average of 50 minutes per day which is not too much. Last summer, I averaged 90 minutes per day of engine time on a week's cruise in my auxiliary which is almost twice as much engine time as needed.

To do this job right, your engine should have a big generator with a current and voltage regulator. When automobiles installed these units, battery trouble almost disappeared. Regulators are important with large generators to prevent overcharging; in fact, they are one of the most valuable aids to the entire electrical system which can be installed. When batteries are run down, the regulator makes the generator deliver its full output; as the batteries are recharged, the regulator tapers off the charging rate to almost zero.

Whether you intend to improve your present lighting system in your boat or are planning for that super postwar luxury yacht, perhaps some of this data will save you possible disappointment. Remember, voltage drop is the worst enemy of bright lights. Don't be a victim of guesswork, because the data in *Table I* have been used and work. For that reason, I suggest saving these data because they just aren't available elsewhere.

COMET CLASS ELECTIONS

▶ A national Comet Class championship will be held at Seaside Park, N. J., in September "if wartime conditions permit," the Association announced at its annual meeting held at the New York Y.C. The following officers were reëlected:

President, D. Verner Smythe; exec. vice-pres., Rodney T. Bonsall; secy., John J. Fernandes, Jr.; treas., Dr. Wilbur H. Haines; exec. com. at large, H. H. Jacobs and H. L. Stone.

Regional vice presidents: Delaware River and Pennsylvania, Edward K. Merrill; Barnegat Bay and So. Jersey, Edward Loughran; Raritan Bay and No. Jersey, J. J. Fernandes, Jr.; Long Island Sound, James Moffatt; New York Lakes, Frank R. Hoffman; Chesapeake Bay, Edward Braddock; Central States, O. E. M. Keller; West Coast, George H. Potts; West Indies, Vincente Balbas-Peña; Massachusetts (*not named*).

two splashes!

The geyser-like burst of an exploding shell...The cascading fountain of a striking bass...Two splashes! One in war. The other peace. With Paragon important to each.

For today, Paragon Reverse and Reduction Gears give light naval craft the quick getaway and lightning maneuverability needed to hit the enemy hard and sink him often.

And tomorrow, these dependable gears, always first choice of leading makers of light pleasure craft, will again make fishing even more enjoyable in fact than thought.

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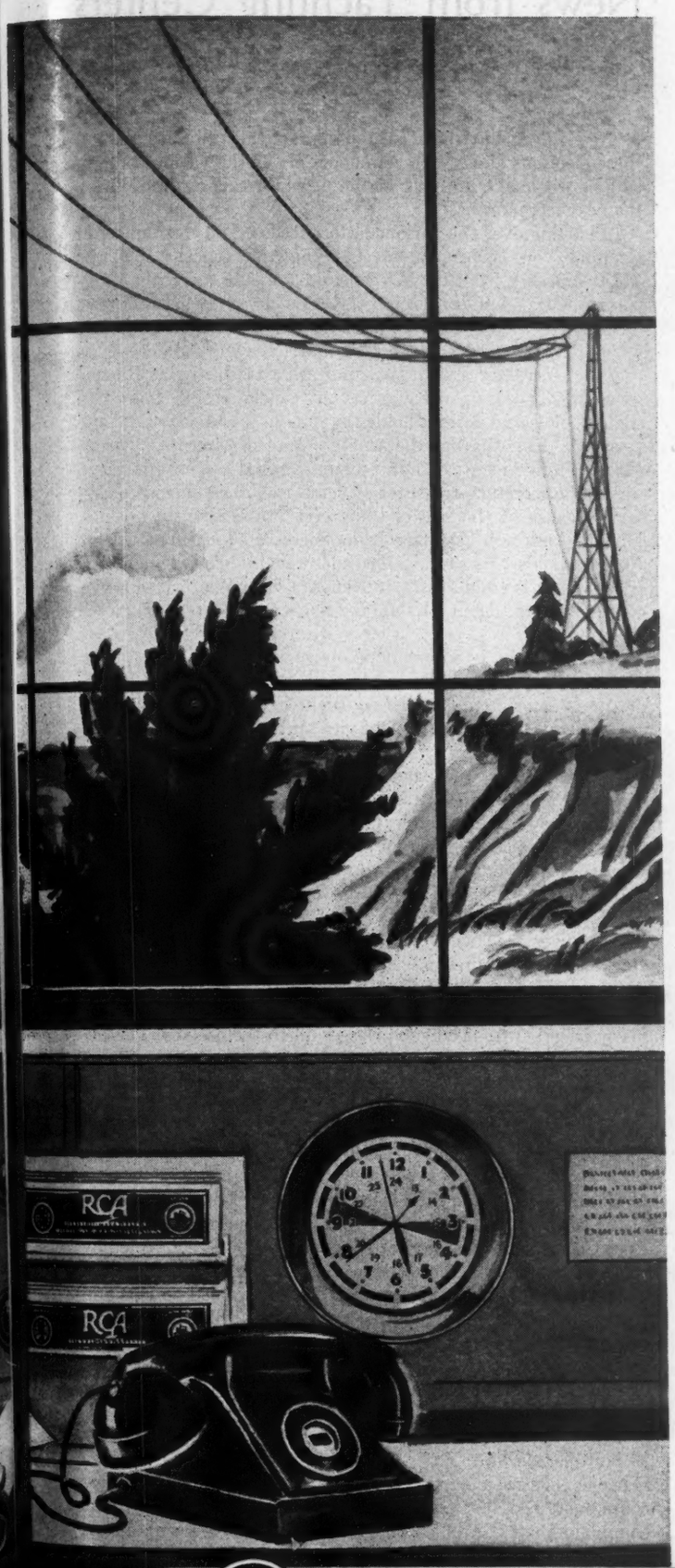

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In normal times, ships of all nations navigating the seven seas handle thousands of radio telegrams to and from all parts of the world through Radiomarine coastal stations along the Atlantic, Gulf, and Pacific Coasts of the United States. Vessels traversing our inland waters are similarly served by Radiomarine radio telegraph and radio telephone shore stations on the Great Lakes and on the Mississippi.

All these stations have direct connections with national and international telegraph, telephone, and radio systems, thus assuring fast, efficient through communication service at all times.

In addition to their message service, Radiomarine shore stations maintain continuous watch for distress signals from the sea and are ever on the alert to render aid to distressed vessels when disaster strikes. These stations also broadcast weather reports for the benefit of ships' navigators and transmit daily news bulletins for the information of those who "go down to the sea in ships."

When war restrictions on maritime communication are lifted, no vessel equipped with modern long range Radiomarine apparatus need ever be out of touch with the home office or with friends and relatives ashore. Radiomarine Corporation of America, 75 Varick Street, New York 13, N. Y.

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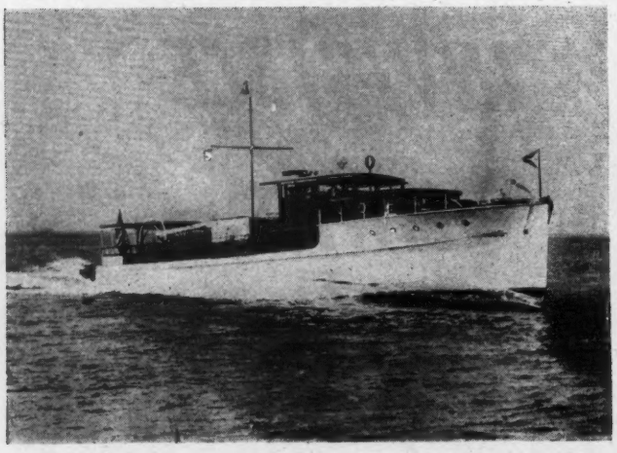

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News from Yachting Centers

LAKE MICHIGAN BREEZES

By Warren T. Davis

▶ New officers have been elected in practically all the clubs and these elections along with comments about the various organizations will make up most of the news for this column during the next few months.

In looking over the various letters received on this matter of elections, your correspondent notes that the Kenosha Y.C. and the Racine Y.C., both in Wisconsin, have offices slightly different from those of other clubs. Racine not only has the two offices of secretary and treasurer but also a financial secretary, which office is now held by Burton K. Klockner. Whether the duties of secretary and/or treasurer are extra heavy at Racine, we know not but up at Kenosha the financial problems must be slight for George Karras holds the double job of secretary and treasurer. Kenosha has the strange office of sergeant-at-arms, the need for which we do not fully understand — perhaps it is to watch the secretary-treasurer or again the office may be necessary because of the size of some of those Wisconsin huskies. Palmer Andreson (spelling from Secretary-Treasurer George Karras) holds this proud office of sergeant. Oh, incidentally, Nels Nelsen is commodore at Kenosha with Walter Stein vice commodore and Henry Kromberg rear commodore.

▶ Otto Schacht is commodore of Racine with C. M. Heller secretary and Norman Reeves treasurer to watch B. K. Klockner, the financial secretary. Wm. Richter and Ernest Kuhnwald are to handle the heavy jobs of vice and rear commodores.

▶ We overlooked the August Regatta at Racine. Here goes, *Caroline Too*, of Milwaukee Y.C., won the Racine Club's Douglas Trophy this past year and *Nancy*, of South Shore Y.C., won their Wadewitz Trophy. The large P and Q Class prize went to the South Shore Y.C., *Lively Lady;* the Universal Yawl and Schooner prize was taken by *Davey Jones* of Racine Y.C.; *Nancy* was tops in Class R. *Sally*, of Milwaukee Y.C., won the large cruiser race with *Rangoon*, same club, top in Class D. Racine Y.C. took first in Class E with *Highlight;* and *Ellide*, of South Shore Y.C., won in the special class. We know not what type of boats race in this latter class but your correspondent has many friends who need such classes all to themselves. The following also took top places: Star Class, *Invader*, of South Shore; Sea Gull Class, *Storm Along;* Snipe and Sunray Class, *First Love*, of Racine; Small Handicap Class, *Swiss Navy*, of South Shore Y.C. Various motor boat races for inboards and outboards were also run but no out of town boats participated.

▶ Charlevoix Marine Club is located in one of the beauty spots of the world and the secretary, Charles A. Duerr, of the Foster Boat Co., says on his letterhead that Charlevoix is connected by water to any port in the world. Harold Miller is commodore at Charlevoix with Alfred Browe and Clarence Wood as vice and rear commodores. We are glad to say, and you will be relieved to hear, that this club has a secretary, Charles Duerr, and a treasurer, Harry Ladd. These Michigan people need no sergeants or financial secretaries. (A vote has been cast to change that title from sergeant to bos'n.)

▶ Southern Shore Y.C. has great news for all — George Schaeffer has been elected secretary!! J. A. Hudson is the new commodore; A. B. Geron, vice commodore; C. R. Bury, rear commodore and E. Keller, treasurer. This club needs an assistant secretary for we have heard it said that George Schaeffer slipped and went to a bowling dinner instead of to a free yacht club annual dinner.

▶ Correspondents' notes: This is being written in a warm Vermont kitchen with the most beautiful snow outside you ever saw. Two Australian naval lieutenants, Fesq and Ferguson, with yacht sailing experience, are also enjoying the hospitality of Robert Hammond, Lt., U.S.N.R., retired.

In the Wheeler tradition of yacht building:

the Wheeler 105

Wheeler, an honored name in shipbuilding, presents a distinguished 105-foot steel yacht, created in collaboration with one of America's leading naval architects. In the Wheeler 105 there are four luxurious air conditioned staterooms for the owner and guests, as well as spacious lounging decks and airy salons. Inquiries regarding the Wheeler 105 and other new yachts and cruisers, both standard and custom-built, are invited.

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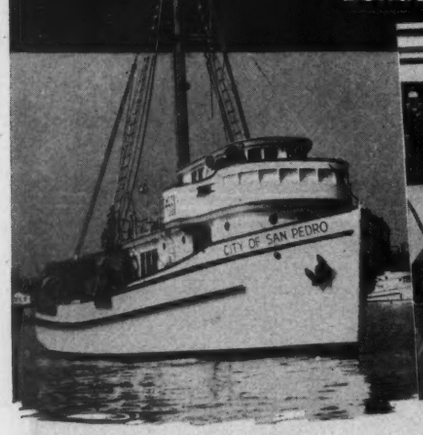
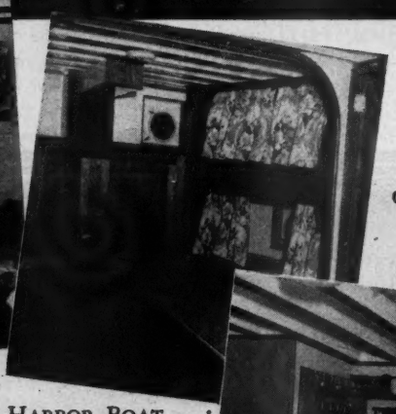
Orders placed now will assure earliest possible construction when conditions permit. Until then, our entire effort will be devoted to the building and repair of vessels for the Armed Forces.

All-welded steel U.S. Army supply vessel ready for launching.

HARBOR BOAT BUILDING CO.

Builds new fishing boat with unusual features and equipment





Left to right
Captain's Quarters
Crew's Quarters
Galley

The *City of San Pedro,* the first post war vessel completed by the HARBOR BOAT BUILDING CO. yards, incorporates many new features in commercial construction, yet it was built without interfering with war production. Luxuriously equipped, it is a "home on the sea" from the captain down to the lowliest member of the crew. It is 88 feet *l.o.a.* and has a depth forward of 12 ft., a 23 ft. beam, and is equipped with a refrigerated hold with a capacity for 200 tons of sardines or 120 tons of refrigerated tuna. Power is supplied by a 400 HP 6-cylinder Enterprise diesel engine. That it is a practical development of experience gained in war production, despite its luxurious appointments, is evidenced by a recent 17-day run in which 1700 tons of sardines were caught!

Builders of Fine Craft

HARBOR BOAT BUILDING CO. LOS ANGELES HARBOR, TERMINAL ISLAND, CALIF.

NARRAGANSETT BAY GOSSIP

By Jeff Davis (Old Doc, rtd.)

▶ First reports that the Herreshoff Manufacturing Co.'s plant at Bristol was to be sold and the company was going out of business were only partially correct. As a swan song, it was pitched too high. Boiled down to brass tacks, only a part of the plant has been sold and the company will continue to operate but with a smaller, more complete and better laid out plant for the construction of the sizes and types of craft which company officials believe the postwar market will demand.

Herreshoff's believes that for many years to come, the day of the big yachts, both sail and power, has passed and plans to concentrate on its smaller one-design classes as well as to produce new classes of both sail, auxiliary and power craft to fill the anticipated postwar demand, to introduce new methods of construction using, in some cases, new materials and new designs.

For the time being, the activities of the company are confined to research and experimental work. The company has been retained by the War Department for experimental and research work for the development of a new type of life float of 25-man capacity which will entail study of all existing types of life rafts and the combination of the best points of each with some new ideas of the War Department, to create something better than anything now in use.

On December 11th, the Walker's Cove yard was sold at auction to Charles Brownell, of Bristol; in addition, a lot of between 70 and 80 wood and metal working machines which the company did not need for the equipment of its smaller, remodeled plant, with an assortment of hand tools, shafting, pulleys, hangers, and other gear, was sold to the Marks Woodworking Machinery Company.

The Walker's Cove yard, which was entirely separate from the original Herreshoff plant, consisted of about 170,000 square feet of land and five buildings with a total floor space of 71,800 square feet, including the immense steel building with about 50,000 square feet of floor space, built originally for yacht storage but converted when the company took on war work and in which most of the 100 vessels which the company built on Army and Navy contracts were constructed.

Of the original Herreshoff plant, the two old shops on the shore side of Hope St. in which all successful America's Cup defenders since 1893, with the exception of *Ranger*, as well as many other noted yachts were built, were sold to building wreckers to be torn down, but the company retained the site, wharves and ways as well as the once famous brick Tea House and the lumber storage sheds. None of the property on the east side of Hope St. has been sold and the buildings are being remodeled, and re-equipped with modern, labor- and time-saving machinery. By the time this is printed, they will be ready to start construction as soon as war conditions permit.

▶ *Short Ends:* The Narragansett Bay Power Squadron has elected Leo R. McDevitt commander, Leighton T. Bohl vice commander, Charles R. Ballou secretary and Harry Leach treasurer. Lieutenant Commander John Hallowell, USNR, was guest speaker at the annual meeting. . . . At the annual meeting of the Taunton Y.C., Carl Gorden was elected commodore, Frederick White vice commodore, Daniel Dean rear commodore, Jack Fisher secretary and George H. Robinson treasurer. . . . Lieutenant Charles J. McKenna, USCGR (T), a member of the Edgewood Y.C., has been assigned to command of the Coast Guard sub-recruiting station at Providence. . . . H. R. ("Hookie") Norgaard, chairman of the Rhode Island Y.C. race committee, has appointed Art Simonds, Ed Barrows, Bill Perkins, Jr., and Jeff Davis to fill out the committee. . . . Howard Angell has been elected commodore of the Rhode Island Miniature Y.C., Samuel R. Dickie vice commodore, Elwin Mitchell rear commodore and Clifford A. Nickerson secretary and treasurer. . . . It has been suggested around here that Arthur Wales ought to change the name of his 55′ twin screw Lawley cruiser from *Imova* to *Imunder*. (For explanation, see page 65, November YACHTING, picture No. 10 in "Hurricane's Wake").

90 M.P.H., in a ¼" Hull

"...without any breaking or cracking from rough water use"!

That's the story Ventnor Boat Works, Inc. has to tell about Marine Weldwood hulls!

Specialists in high speed craft, Ventnor has used Marine Weldwood to build such outstanding record-breakers as "My Sin", "Wild Goose" and "Tops III".

To quote them, they "found the use of Weldwood for planking, framing and decking far superior to . . . straight grain lumber".

Ventnor's rakish 21-foot runabout is off the drawing boards. Ready for production as soon as restrictions are lifted, this craft is designed for those who want speed on the water.

Mr. Arno A. Apel, General Manager, Ventnor Boat Works, Inc., West Atlantic City, N. J.

Mr. Apel says: . . . When we used ⅜" mahogany planking on the 65 M.P.H. hydroplanes, we were continuously making repairs to split and cracked planking. Whereas, in the past few years, we have been using only ¼" thickness Weldwood and have increased the speed of these boats up to 90 M.P.H. without any planking breaking or cracking from rough water use.

You may rest assured that our post-war racing boats and pleasure craft will be of only Weldwood construction . . . this is the only material that has all the advantages required in high-speed boats.

In record-breaking speedboats lightness means speed on the water. But speed demands strength.

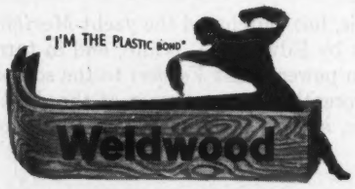
Pound for pound, Weldwood Plywood is stronger than steel . . . yet it is easily worked, is shatter-proof and cannot split.

In boats built with Marine Weldwood, you never have to worry about cracked planking. Structural deformation caused by warping, shrinking or swelling is held to an absolute minimum.

Weldwood's waterproof plastic-resin bond is rot-proof, teredo-repellent, and will not support the growth of mold or fungus.

And *Molded* Weldwood will also help make your post-war dreamboat come true. In addition to all the advantages of flat Marine Weldwood, Molded Weldwood will give you sleek, smooth hulls . . . molded in one, stress-free piece!

Many people expect post-war pleasure craft to be far advanced over pre-war designs. Much of this advance . . . which will mean so much to your boating pleasure . . . will be due to new techniques and materials in which Marine Weldwood plays a leading part.



Plastics and Wood Welded for Good

Waterproof Weldwood, so marked, is bonded with phenol formaldehyde synthetic resin. Other types of water-resistant Weldwood are manufactured with extended urea resins and other approved bonding agents.

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UNITED STATES PLYWOOD CORPORATION

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Send for this interesting, historic wall hanger...
IT'S FREE

Here is an interesting wall hanger which pictures many of the pleasure power boats and yachts which did such signal work for the Armed Forces in guarding our shores and shipping from enemy submarines. Now that the majority of these craft have been turned back to their original owners, you will want this poster for its historic value. It is a tribute to the patriotism of yacht owners everywhere and evidence of the sturdy seaworthiness of American-designed and built boats. Write today for your copy. It will come to you with our compliments.

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HAZARD WIRE ROPE DIVISION
AMERICAN CHAIN & CABLE • BRIDGEPORT

ACCO TRADE MARK

In Business for Your Safety

Before she went under that bridge at Onset, she had parted a new rode and dragged a three-ton cement mooring. On the morning of the day the hurricane struck, *Imova* was at Nantucket. Mrs. Wales had been taken ill while on a cruise, and only that morning left the Nantucket Hospital. Storm warnings were up, but Wales felt he must get Mrs. Wales home, so he got under way and reached Onset before the storm hit, picked up his mooring, let go an anchor, and took Mrs. Wales ashore. The next time he saw his boat, she had gone under the bridge and everything above the deck level had been sheared off and flattened. He found her engines hadn't been hurt, so he rigged a makeshift steering gear, started her engines and ran her from Onset to Lemos' yard in Bullock's Cove at Riverside, R. I., where she is now hauled out and will be repaired as soon as Lemos can get something to make deckhouses of. Incidentally, Wales rates JN after his name on the Power Squadron roster.

PACIFIC NORTHWEST CAT'S-PAWS

By Ray Krantz

▶ Seattle has gained a third yacht club, in the recent organization of the Corinthian Y.C. of Seattle, a new group which will promote the "Corinthian sport of yacht racing and cruising" under canvas. At a January 12th meeting, Charles J. Frisbie, of the Seattle and Queen City Y.C.'s, was scheduled to be elected commodore. Other leaders of the club include Ray Elliott (Six-Metre *Saga*), R. O. "Bud" Anderson, (*Hanko*, another "Six"), and Chuck Ross. A second meeting of the new club was slated for January 26th.

▶ Frisbie, still with the Navy but now stationed at Seattle, soon will add the fine new Eight-Metre *Marbett* to local fleets. He bought *Marbett* in December from Edmund Gabriel, South Weymouth, Mass., through M. Wakelin, representative for John G. Alden. The craft, originally built by Fife, Fairlee, Scotland, in 1930, features copper-fastened African mahogany planking and pine decks with mahogany trim. The 48′ sloop is in perfect shape, according to Frisbie, and has a good racing record. *Marbett*, to be flat-car shipped to the coast, eventually will be *Chinook*. This designation has at least three distinct definitions: (1) the name of an Oregon-Washington Indian tribe; (2) the name of a warm southwest wind; and (3) the name of one of the kingliest of the Pacific salmon species.

Frisbie recently sold his 42′ auxiliary sloop *Tola* to Charles Olmstead.

▶ Your writer confesses an unintentional error in the December issue. R. O. Andersen, and not Stimson Bullitt, is the owner of the "Six" *Hanko*. Sorry!

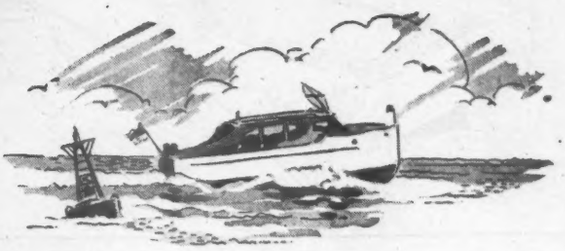
▶ *Sea Boot*, a 26′ fast cruiser, Chrysler Crown powered and built by Gene Herzberg, has been acquired from George Wiggen by Henry Case. Fremont Boat Market handled this deal, as well as the sale of a 30′ cruiser, formerly owned by Ken Leevers, to Ray Johnson.

▶ Dredging has been started on the basin for a new boat storage, sales and service plant at Day Island, Tacoma, which will be operated by Ernie Adams. Chris-Craft yachts and Johnson outboard motors will be featured in sales.

▶ A. C. St. John, Chehalis, has purchased the yacht *Marilyn III*, a power cruiser built by Edward D. White, and in turn disposed of his well-known power yacht *Vendovi* to the son of Lee Eyerly. The latter recently became owner of the diesel yacht *Sea Rest*, of Seattle, so this makes two yachts in the Eyerly family now.

▶ YP-*630*, new 128′ Navy refrigerated cargo vessel, slipped down the ways January 6th at Seattle Shipbuilding and Drydocking Corp., with Lt. Cmdr. Mary Daily, of the Waves, breaking the bottle. The craft is the last of two of these vessels ordered by the Navy. Similar "seconds," YP-*632*, and YP-*636*, respectively, were launched on the 16th and 20th of January

For Real Performance OWN an OWENS!

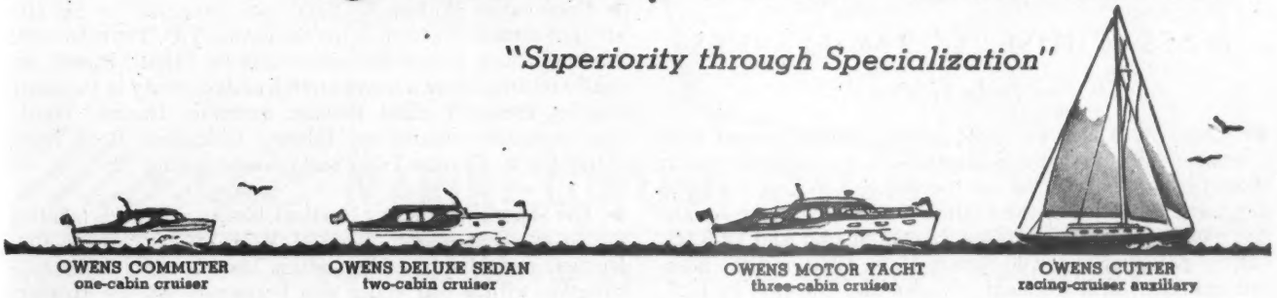


"Pop's made me helmsman of our new Owens! He says they handle so easily because of the way Owens builds them!"

Junior's right to be so proud—and his Pop's right to tell him what makes it possible. Owens chooses to specialize on just four types, each built in its separate plant by efficient crews of teamed builders. Thus Owens can offer, at no extra cost, expert hydrodynamic design that assures complete stability and maneuverability . . . mechanically geared and telescopic steering . . . monotype reverse and throttle controls . . . water-form shape that gives the most speed for the least fuel. And those are just some of the *many quality-value features* that, thanks to Owens efficiency through specialization, make the Owens you choose the *biggest value* any builder can offer, and the boat Junior—and Pop—can put through its paces with real pride and skill. Want full details on what Owens specialization does for you? Just write to Owens Yacht Co., 10 Stansbury Road, Baltimore 22, Maryland.

OWENS The Ideal CRUISERS

"Superiority through Specialization"

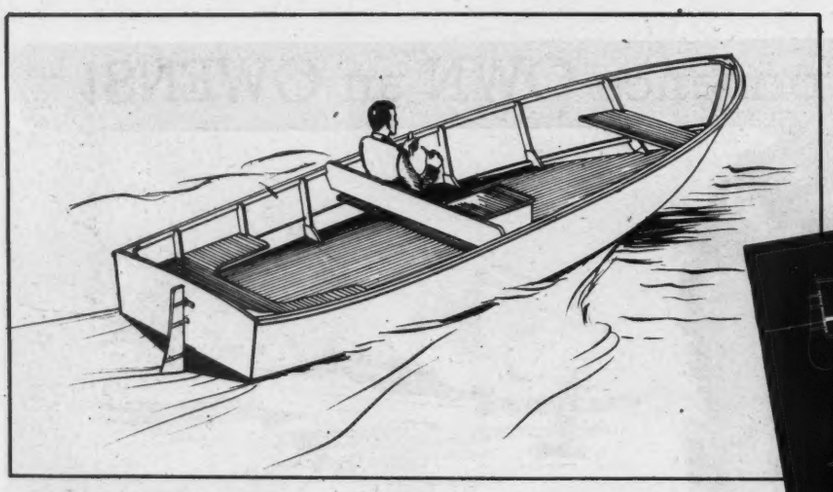


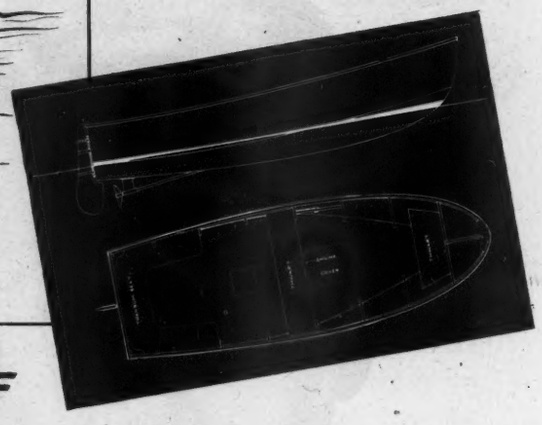
OWENS COMMUTER
one-cabin cruiser

OWENS DELUXE SEDAN
two-cabin cruiser

OWENS MOTOR YACHT
three-cabin cruiser

OWENS CUTTER
racing-cruiser auxiliary





GIBBS

GIBBS SPEEDI-SKIFF

This new 16 foot by 5 foot 6 inch inboard-powered SPEEDI-SKIFF is another GIBBS postwar boat that will be ready for you soon. Husky waterproof plywood over solid oak frames makes her strong, yet she is light enough to be capable of good speed with moderate power. A perfect boat for fishing, summer camps or for any fast service. Her ample freeboard and general shape make her an exceptional sea-boat.

GIBBS GAS ENGINE CO., OF FLORIDA • 4 Flagler St., Jacksonville 1, Florida

by Sagstad Shipyards, and Ballard Marine Railway Co. Inc.

Ballard Marine Railway, incidentally, has been sold by William and Henry Fryberg and Mrs. T. W. Smith to Walter MacCray, Seattle diver, and Leo Barnecut. Barnecut has been superintendent of Maritime Shipyards for about ten years. Hugh Prentice, practically a Ballard Marine fixture as its general manager and man-of-all-work, will stay on.

▶ *Cat's-paws:* Rudy Peier is to rerig Ray Cooke's big cutter *Circe* to a yawl; Rudy (*Neoga II*), it appears, is doing this sort of work full time now. . . . George Freeman, Seattle, is completing a "Kiletan" type cutter for his own use; the Monk-designed craft is a 34 footer. . . . The Lester and Franck yard is building beach seiners for Kadiak Fisheries. . . . Similar type boats, 34 and 40 feet in length, are under construction at Bryant's Marine for Alaska Packers Association, as well as two tunnel stern tugs, 34 and 40 feet in length, for the same client. . . . Maurice Reaber, one-time Seattle boat builder, is a "big ship" pilot in Alaskan waters. . . . Vancouver sailors at a recent P.I.Y.A. meeting, suggested that steps be ultimately taken to encourage the postwar building of sail yachts within defined limits to permit more "boat for boat" and less handicap racing.

MASSACHUSETTS BAY FLASHES

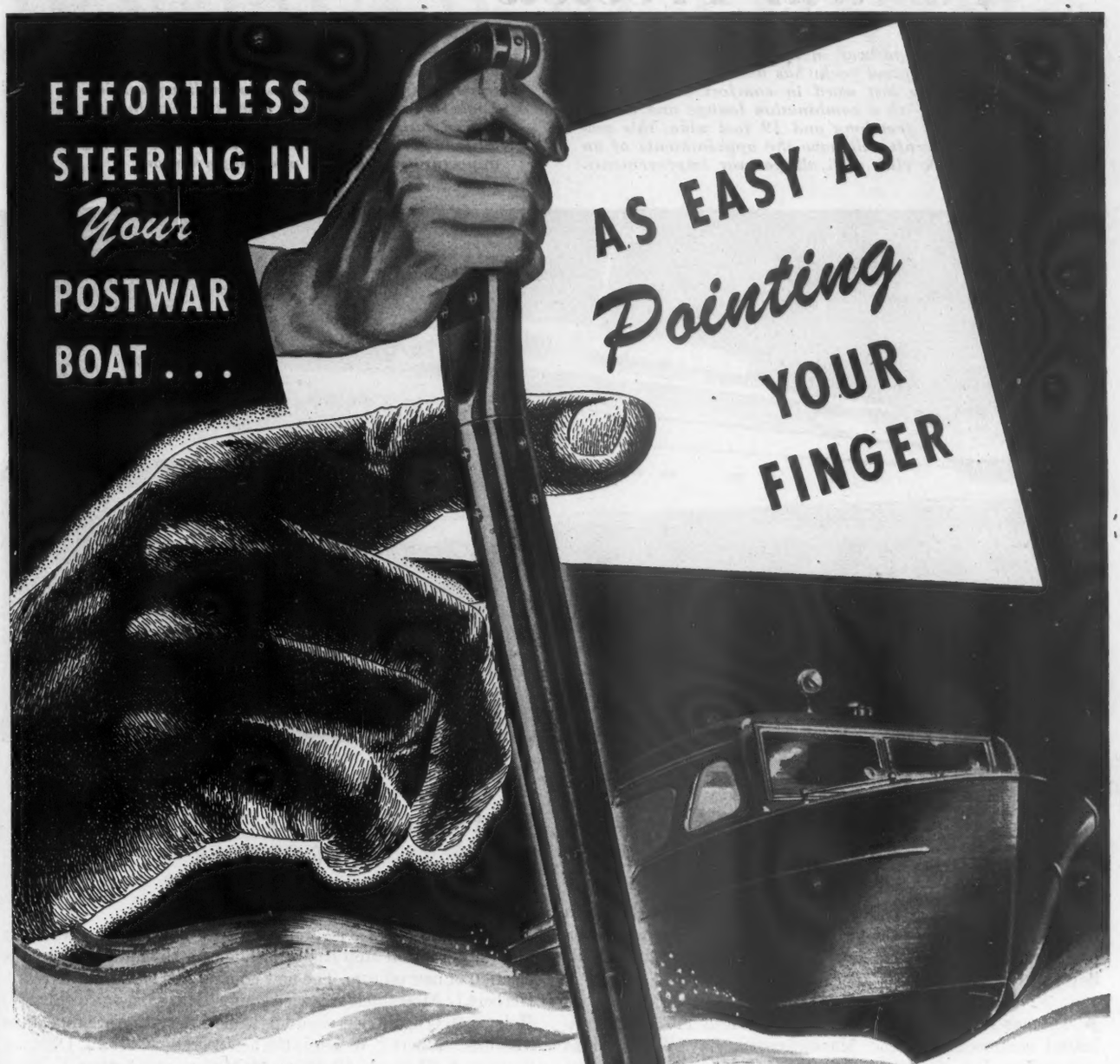
By Ed Earle

▶ Charles A. Welch, 44, noted internationalist, passed away December 2nd at his home in Marblehead. A former commodore of the Corinthian Y.C., he was the youngest to hold the three-star berth in the log of the Club. His "R" sloops *Yankee* and *Live Yankee* were noted trophy winners in 1927 and 1928. He was the promoter of the 30-Square Metre Class and the international series with Germany, Sweden and Norway. In 1927, Welch sailed *Yankee* in the New York Y.C. series off Newport and in the following spring won the Don Lee gold "R" sloop trophy at Los Angeles with *Live Yankee*. He defended for the Corinthian Y.C. in the international 30-Square Metre series of 1929 and competed in the international races at Kiel and Sandham in 1930. He also took a leading part in the introduction of the Yankee One-Design Class. His brother E. Sohier Welch is one of the leading skippers of Marblehead. He was also a prominent swordfisherman and his husky *Walrus* was a familiar sight at Edgartown. He was commodore of the Corinthian Y.C. in 1929 and 1930 and a member of the Eastern, Boston and New York Y.C.'s, and the Cruising Club of America.

▶ Small boat racing will be more active than ever in this northeast bight of the Atlantic. Prospective larger classes are in the lap of Mars until the all clear signal is hoisted on new construction. Old sails will be carefully nursed in these days of duck shortage. But small boats sail on forever in the one-design fleets where there is a reserve of spare gear. Unless the ban is lifted on horse and dog tracks, yacht racing will be the only racing, and several yachtsmen who doubled in brass by following the horses will be back at the yacht clubs again. War veterans are trickling back home for good and those we have "gammed" with are itching to feel the tiller again.

▶ Commodore William G. Sands was reëlected for his fifth straight term to the helm of the Squantum Y.C. The other 1945 officers include Vice Commodore Alan G. "Bud" Russell, recently returned from a heavy stretch of Army duty in the South Pacific; Treasurer Elliot Bowker, Secretary Harland Smith; and, executive committee, Edward Gallagher, Ross Reed, Harry Smith, Gordon Taber and Stanley Doring.

▶ The Massachusetts Bay Hustler Class Association is pointing for an excellent season. Reid, of Winthrop, is building four Hustlers and Moody, of Squantum, has two more under construction with a pair under way by owners. All the Hustlers damaged in the hurricane, with the exception of C. Fred Sterling's *Badger VII*, will be repaired and put in better shape than



Ease of operation, with a new sense of sureness and safety, will be yours to enjoy with the Morse Stick Control.

The Morse Stick coordinates steering and engine control in a single unit—under the light touch of one hand. It makes steering, even under the roughest of water conditions, as easy as pointing your finger.

Look forward to a brand-new conception of pleasure boating with *your* Morse Marine Control System. It will be available as soon as war-time restrictions are lifted.

WHY YOU WILL WANT MORSE STICK CONTROL

Steering and transmission are operated hydraulically — controlled with ease by a single unit — the "Stick".

In steering, 18 or more feet of hard wheeling is reduced to only 18 inches by Morse Stick.

Instantaneous rudder action.

Position of stick indicates direction of rudder.

Stability and ease of operation obtainable with no other equipment.

Morse **MARINE CONTROL SYSTEM**

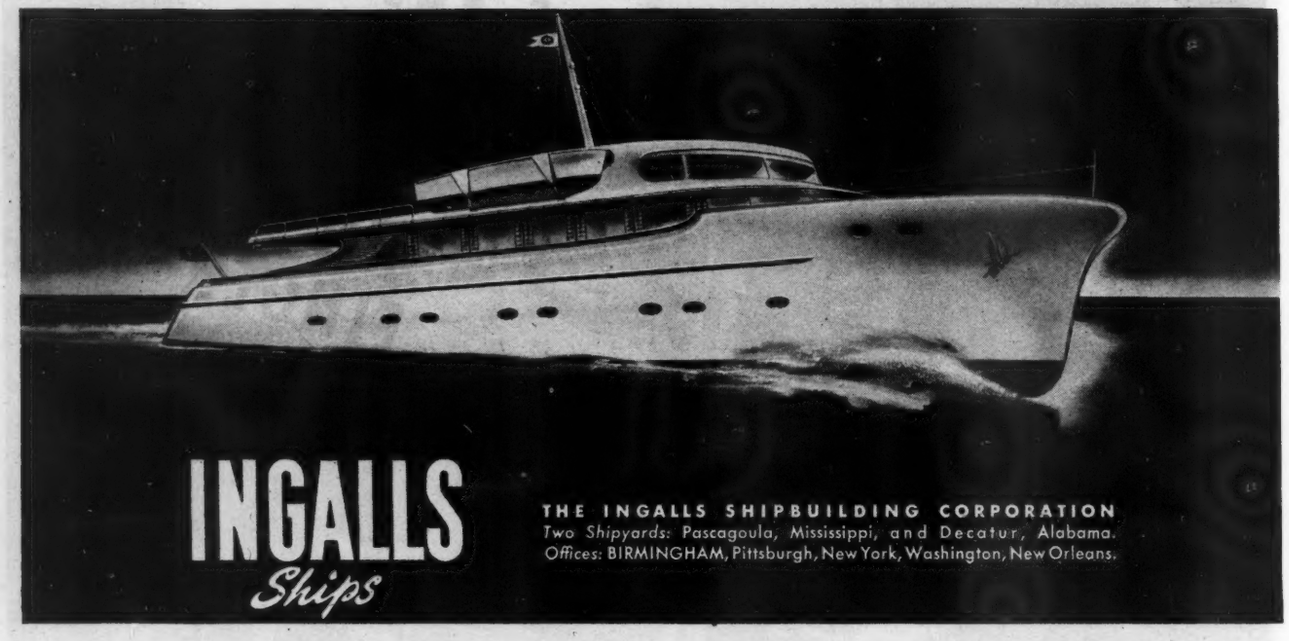
ARMY E NAVY

THE MORSE INSTRUMENT CO., 25 Clinton St., Hudson, Ohio

Postwar Preview

Distinctly postwar in appearance, this 90-foot all-welded steel yacht has been planned to represent the last word in comfort and modern design. With a combination lounge and dining room 42 feet long and 19 feet wide, this seaworthy craft will have the appointments of an exclusive club with all postwar improvements.

Until the war is won, Ingalls will continue to concentrate all efforts on building giant attack transports and other ships for military service. Look to Ingalls now and after the war for improved design and methods in building the finest all-welded craft afloat. We will welcome the opportunity to supply other information.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ever. Thurston Koopman, of Weymouth, has purchased the vertebra of the wrecked *Badger* and will rebuild her. Sterling has acquired another boat.

▶ A variation of the Hustler has been built at South Boston, a smooth, fore-and-aft planked, mahogany-trimmed boat. Seven or eight new boats in this new class are scheduled to be built down at City Point.

▶ Thomas M. Moroney, of the South Boston Y.C., was nominated commodore of the Massachusetts Bay Yacht Clubs Association, Inc., for 1945. The other officers include Clarence H. Fisher, of the United Shoe Y.C., vice commodore; Kenneth C. Yoerger, of the Town River Y.C., rear commodore; Norman A. Gray, of the Winthrop Y.C., treasurer; George L. O'Hara, of the Chelsea Y.C., secretary; Edward D. Sharkey, of the Jeffries Y.C., and Thomas F. Sheehan, of the Squantum Y.C., board of directors. Through the courtesy of the U. S. Coast Guard, publications entitled "Buoys in Waters of the United States," "Nautical Rules of the Road" and "The Significance of Aids to Marine Navigation" were distributed to those at the meeting.

▶ The Palmers Cove Y.C. installed its flag officers with Mayor Edward Coffee, of Salem, heading the ceremonies. The 1945 officers include Commodore John Migneault, Vice Commodore Rosario Belleau, Rear Commodore John Gagnon and Secretary J. Arthur Leblanc.

▶ The Fiftieth Anniversary Report of the Cohasset Y.C., sent by Commodore Ralph E. Scripture, is a splendidly compiled brochure illustrated by pictures of famous boats which have sailed under the burgee of this old club. Competition the last three years has been limited to informal racing in the Seventeens and racing by the youngsters in the Rookies. Come peace again, and this club will take up where it left off and the keen racing of former years will be enjoyed again.

YACHTING ON THE NIAGARA FRONTIER

By Reginald H. Pegrum

▶ The Buffalo C.C. is preparing busily for a new yachting season. An initial step has been taken in that direction by the election of new officers. The new commodore is Arthur A. Ward. Herbert L. Moershfelder is vice commodore; Ernest H. (Shorty) Holzworth is again fleet captain, while Harry E. Care repeats as treasurer. Robert J. Woods is the new secretary. Fred J. DeMars, William N. Hudson, Albert A. McMullen and Arthur F. Moul were elected as new directors. Allan F. Reif, John M. Stern, Dwain E. Weaver, Ferris T. Wentworth, and Fred P. Weyler continue service on the board of directors, as does also the retiring commodore, Gilbert R. Blehdon.

▶ New officers of the Buffalo Y.C. were recently elected. The new commodore is Ralph Rycroft; vice commodore, Felix E. Prochnow; rear commodore, Charles Jennings; secretary, Frank Doran, and treasurer, Howard Stimm. Edward E. Tunmore and Carl E. Nagel are holdovers from the board of last year; Edward C. Boehm, retiring commodore, and Walter Werheim were reëlected.

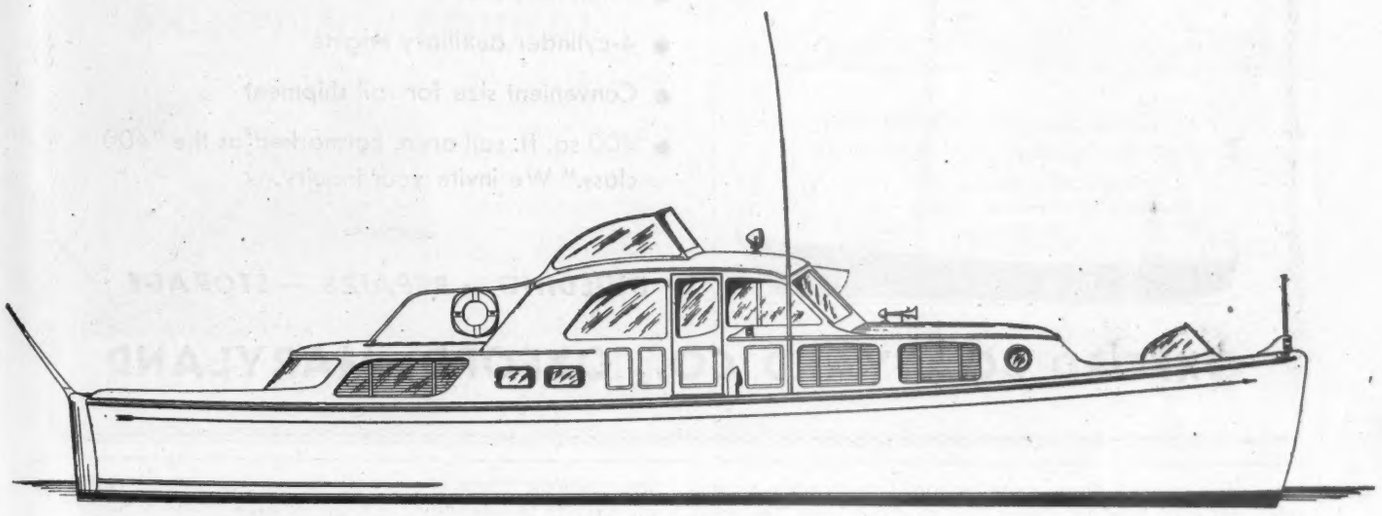
▶ The Buffalo Power Squadron classes have begun for the season with normal registration, except for Piloting which is below par. Jack Livingston is in charge of the Piloting class; Delbert P. Robinson is teaching the A.P., and Henry A. Jeffers the N. New officers were recently elected as follows: commodore, Edwin C. Roseberry; vice commodore, Jack Livingston; secretary, Felix E. Prochnow; treasurer, Delbert P. Robinson, and flag lt., Raymond L. Morrison.

▶ Captain Roswell S. Buck of the Army Engineers Amphibian Command has returned home from the South Pacific, and is now on inactive status. He claims that he has had enough "yachting"

POSTWAR PLANNING

BY

CAMBRIDGE



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Her specifications show optional twin gasoline or diesel power; Honduras mahogany planking and deckhouse; Everdur fastened.

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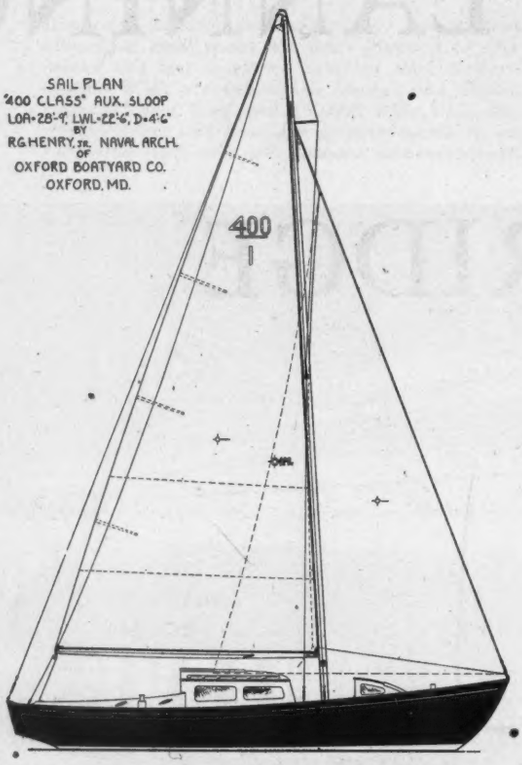

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- Cruising accommodations for three
- Large well-planned galley
- Full 6 ft. headroom under cabin
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- Convenient size for rail shipment
- 400 sq. ft. sail area. Earmarked as the "400 class." We invite your inquiry.

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for a while and will do no more for sometime to come — certainly not until June. Lt. Henry Phillips of the Army Transport Service was recently home on leave. A real reunion of the yachting family of Edward M. Scheu occurred when two sons, Lt. (jg.) Robert Scheu, USCGR, and Quartermaster 1/c Buddy Scheu, USNR, returned from duty in the European area. They were both on the Normandy Coast on "D" day.

LIGHTNING NOTES

By James Trenary

▶ Lightning registrations have increased to 1260 with a real prospect of reaching 1400 before the 1945 season begins, even in the light of severe material shortages. The time is rapidly approaching when there will be a Lightning *Spirit of 1776* as there was not so long ago in the Star Class.

▶ 1945 will find the following District Secretaries on the job: Down East District, Granville H. Dyer, 17 Highland Road, South Portland, Maine; Southern New York and New England District, Richard Carr, 38 Beach Ave., Larchmont, N. Y.; Central Atlantic District, William R. Spofford, 1035 Land Title Bldg., Phila. 10; Central N. Y. District, E. J. Hamilton, Pt. Pleasant, N. Y.; Lake Erie District, Karl Smither, 170 Greenaway Road, Eggertsville, N. Y.; Prairie District, William E. Schwartz, c/o Commercial Candy Co., 230 Kansas Ave., Topeka, Kan.; No. Lakes District, Walter Wellman, 1204 E. Johnson St., Madison 3, Wis.; Southern District, Ethan Allen, 350 Pine St., New Orleans, La.; Texas District, Milton E. Price, 1708 Republic Bank Bldg., Dallas, Texas; Pacific Coast District, Harold McCarthy, 1317 Shattuck Ave., Berkeley, Calif.

▶ The Lake Michigan District elected a District Secretary on January 14th, while a secretary for the Florida District is now being discussed. With activity growing so rapidly, it has been necessary to cover the United States completely with District organizations. There is every likelihood that several Districts will have to be established in Canada, since fleets are being organized both in the East and in British Columbia. If the many lads in the South and Central Pacific continue to build Lightnings, the Lightning Association may find itself asking Admiral Nimitz to handle the Pacific Ocean area.

▶ New fleets are being organized at Great Egg Harbor on the New Jersey Coast; Lake Pontchartrain in Louisiana; Milwaukee and Neenah, Wis.; Vancouver, B. C.; Shrewsbury River near Red Bank, N. J.; Arundel Boat Club on the Chesapeake, Baltimore, Md., and possibly another new fleet on Long Island Sound near Stratford, Conn.

▶ The Association *Year Book* will go to press about March 1st, and will be mailed to paid members of the Association before the sailing season opens. The 1944 *Year Book* was the biggest volume ever published by the Association, being 164 pages, but prospects for the coming book are even greater. *Lightning Flashes*, the quarterly bulletin of the Association, is growing rapidly, not only in size but also in circulation. Information about these publications may be obtained from Leonard Ladenburger, Lightning Class Association, 37 Cass St., South Haven, Mich.

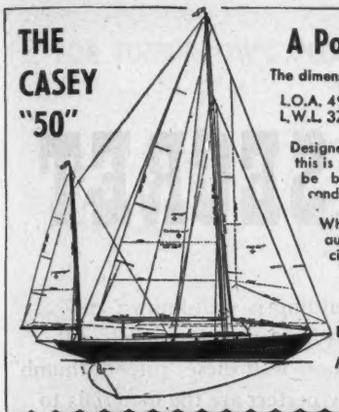
CHESAPEAKE BAY ACTIVITIES

By Bugeye Bill

▶ F. H. ("Hal") Loweree, who has served as secretary-treasurer of the Chesapeake Bay Y.R.A. for the past two years, has been elected president of the association. He is a member of the Gibson Island Y.S. The annual meeting was held in December at the Annapolis Y.C., at which time Stanley B. Trott, retiring president, was given an ovation.

Taking over as vice president is W. W. ("Bill") Heintz, former commodore of West River S.C. Heintz is president of the Penguin Dinghy Class Association and one of the founders of

THE CASEY "50"



A Post-War Ocean Racer

The dimensions of the Casey "50" are:

L.O.A. 49' 11" Beam 12' 6"
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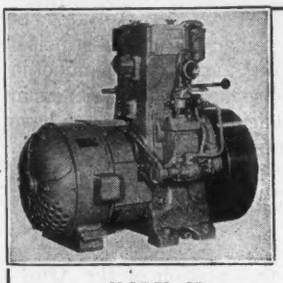

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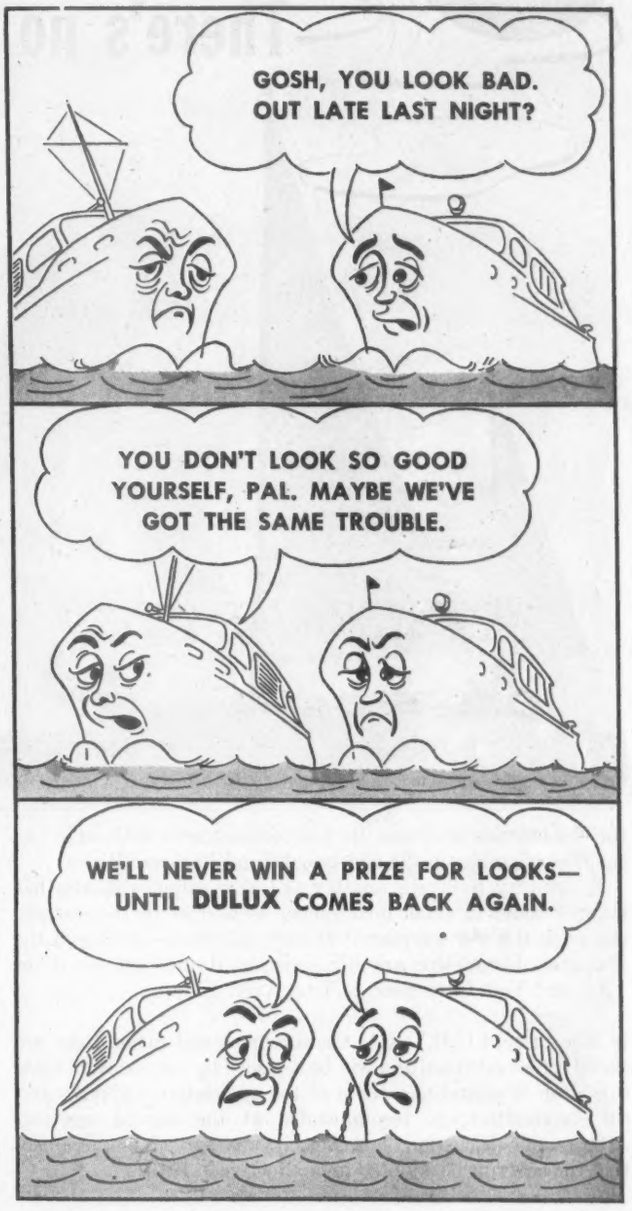
GOSH, YOU LOOK BAD. OUT LATE LAST NIGHT?
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DULUX Marine Finishes are winning prizes for brilliant war service today. But the time will come when they will again be available to provide extra beauty and protection for your craft and the boats of peacetime everywhere. E. I. du Pont de Nemours & Co. (Inc.), Finishes Division, Wilmington 98, Del.

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the Chesapeake 20s Class. He has been active in both large and small boat racing on the Chesapeake and Potomac River.

E. Murray Sullivan, another G.I.Y.S. sailor who also has taken a hand in small boat racing as well as in the cruising classes, is the new secretary-treasurer. Members-at-large of the Executive Committee are Jim Faye, of Rappahannock River Y.C., and Tom Carpenter, of Tred Avon Y.C.

▶ The present C.B.Y.R.A. measurement and rating rules are slated for an overhaul and will be replaced by the Cruising Club rule. Bob Wayland, chairman of the association's appeals and rules committee, so recommended at the annual meeting. After much discussion, however, it was agreed unanimously that the new rule be adopted to be effective in 1946.

▶ Charles E. Loughney, Jr., chairman of the records committee, had a pertinent observation to make in submitting his report. He said: "There was not a great deal of work for the records committee and, with the coöperation of the member clubs and the officers of C.B.Y.R.A., the job was relatively easy. It is hoped that this will not be the case next year (1945) and that the records committee will be snowed under with race results."

He reported that 11 out of 36 events sanctioned by the association were held in 1944, with a total of 86 boats in all classes competing. While the High Point Trophies are not being competed for during the war, it is interesting to note that boats in two classes might have qualified. They are Vincent J. Serie's *Bee Jay*, Hampton One-Designs, and Carter K. Keane's *Fair Play*, Snipes. Both are from the lower Bay where yachting staged somewhat of a comeback in 1944.

▶ By unanimous agreement, Phil Rhodes has been picked to design the postwar one-design for the Bay.

Loweree, who has been sparking the plan, reports that interest continues high in the proposed class and adds that: "We are going to try to be all set and ready to go just as soon as conditions permit private yacht building."

▶ Rear Admiral E. L. Cochrane, head of the Navy's Bureau of Ships and Comet sailor in the Potomac fleet, was principal speaker at the Potomac River S.A. 10th anniversary banquet in December at Old Dominion B.C. He spoke of his experiences in the Palau landings last year in the Pacific. Sailors hope to have him back for an encore at their annual meeting this month. Trophies were presented, and guests included Dr. John Eiman, commodore of the Comet Class Y.R.A., and D. Verner Smythe, president.

▶ Flags and bunting flew at the presentation of the Army-Navy E award to the Oxford Boatyard Co., Oxford, Md., in December. Admiral Cochrane was present for the ceremonies. The yard has been building aircraft rescue boats for the Navy.

▶ The Corinthian Y.C., in Washington, has elected the following officers: Philip F. Taylor, commodore; Roland N. King, vice commodore; William H. Heagerty, rear commodore; Lewin W. Walker, secretary-treasurer; Lt. Comdr. W. H. Wiegering, recording secretary; M. G. Haring, measurer, and Clarence S. Bruce, George E. Reynolds and Bruce A. Wilson, trustees.

FROM SAN FRANCISCO BAY

By Jesse L. Carr, M.D.

▶ Eagerly awaited for many months by local yachtsmen, word has just come through that yachtsmen, excepting skippers of boats on San Francisco Bay and their guests or passengers no longer are required to carry Coast Guard permits. The pleasures of sailing and ease of procuring racing crews has been necessarily but seriously hampered by this restriction, now lifted. Skippers still must sail with Coast Guard permits, but all others now need only authentic identification. With this happy New Year's event, the Coast Guard also announces dredging operations in the turning basin at Redwood Creek and in Petaluma Creek from McNear's Canal through the head of navigation.

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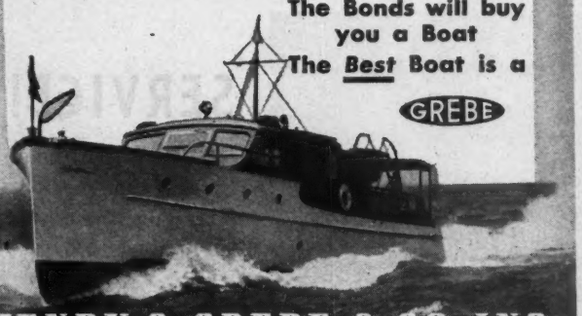

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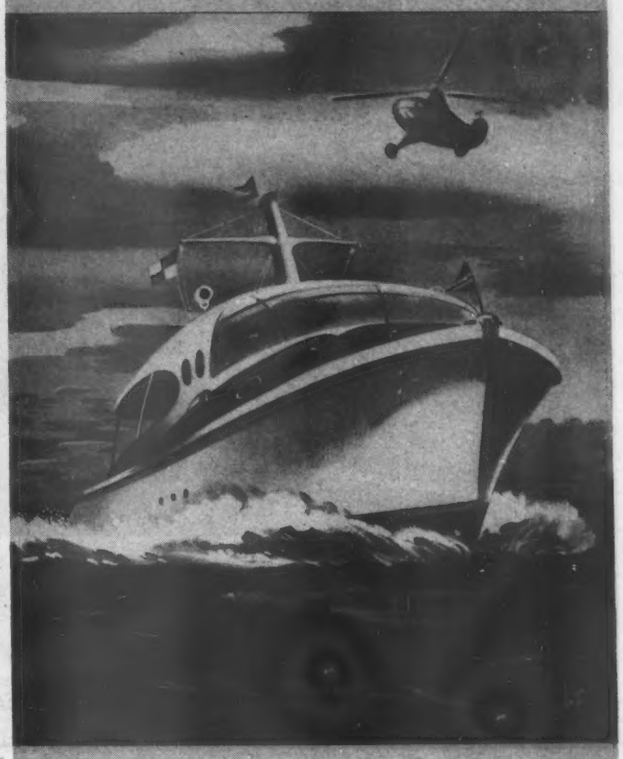

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Whatever other new improvements there are after the war, they will all be important contributions to your "Boat of Tomorrow". But one thing will remain the same—you will need insurance to protect your craft against fire, hurricanes, theft and all other hazards to which it is constantly exposed.

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CITY ISLAND FOOT OF CARROLL STREET NEW YORK

▶ The polls were open at the St. Francis Y.C. on January 8th for the election of officers for 1945. Those selected by the nominating committee are: Commodore, Howard H. Hurst; vice commodore, Dr. Jesse L. Carr; rear commodore, A. C. Farlow; directors, Stanlus Z. Natcher and Walter B. Armstrong.

▶ From the San Joaquin River delta comes a report of reconstruction of many of the San Joaquin River channels. The banks of the upper reaches of the river near Stockton continue to be badly eroded with now impending dangers to the levees because of the tremendous wash thrown by the PT boats as they are put through their speed trials before being accepted from Stephens Bros. Shipyard.

▶ With the extraordinary dredging, filling and ship movement along San Francisco Bay shores, new shoals continue to appear, two now being reported about Hunter's Point, while the shoal in front of the Corinthian Y.C. in Belvedere Cove has extended westward and the shallows extending from Belvedere northward are now out toward the San Francisco Y.C. channels some 150′ farther than at the beginning of 1944.

▶ Social activities throughout yachting circles were at an all time high New Year's Eve, with most of the local yacht clubs having New Year's Eve parties in their respective homes. Most novel of the parties was that given by the Coyote Point Y.C. where unlimited free highballs were included.

▶ Randolph Carroll, of Burlingame, now owner of the *Kinkajou*, will winter at the Coyote Point Y.C. Mr. Hackley and his daughter have bought the cruiser recently sold by T. Gibson. The Bird boat *Mavis*, formerly owned by Bob Crowley, has been bought by John Myers. Adolph Sutro's picturesque converted New Bedford fisherman, long a fixture at the San Francisco Yacht Harbor, has been sold and will again be put into service.

FLORIDA TRADE WINDS

By Vivyan Hall

▶ There is much interest here in the sale by the War Shipping Administration of the first group of converted yachts to be released by the Navy. Most of the 26 boats had either been owned locally or had spent winters in these waters. Bids were closed on November 28th and the results announced a month later. Bids were accepted on 17 of the boats and on the nine others "negotiations are being carried on with the bidders as the high bids are not considered by WSA to represent the net worth of the vessels." Herman Wepman, a Miami attorney, bought the 104′ twin screw diesel *Freba* which had belonged to William S. Barstow, of Great Neck, for $12,000. *Kiki IV*, a 45′ Alden schooner built by Pendleton in 1926, went to John E. Knepper, of Miami, for $2,250. *Ko-Asa*, an 83′ auxiliary bugeye with diesel power which Davis, at Solomons, built in 1936 for George Marshall Allen, of New York, went to the Miami Iron and Metals Company for $5,685. It is reported that both *Freba* and *Ko-Asa* will be put into the West Indies freight trade. N. Erik Almen, of Annapolis, bought both of the diesel houseboats *Charmarie* and *Sunshine III*. The former a 76-footer built in 1940 for Charles J. Eisenlohr brought $16,300 and the latter, a 100-footer finished ten years earlier for Harvey W. Harper, went for $10,100. Charles Sorensen's 87′ iron schooner *Icaros*, built in Germany in 1886, brought $3,100 from J. W. Metzler, Jr., of Houston. Bids were closed December 22nd on the next group of 44 former yachts, fifteen of which are stored at Fort Lauderdale.

▶ The holiday regatta of the Palm Beach Y.C. brought out 30 starters. Guests for the day were members of the Lake Worth Y.C., a few miles to the south, who proceeded to take major honors in the feature Moth Class Race. Two of the visiting skippers were out to trim champion Jimmy Dan Erneston's *Skeeter* and they did it. Alvah Rowe's *Grey Goose* took first and

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These boats are ideal for yacht tenders, fishing, duck hunting, beach boats, municipal Fire and Police Departments.

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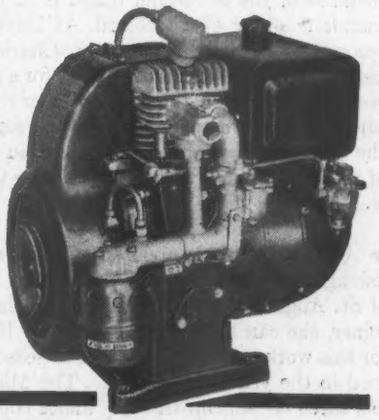

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Harry Pinner's *Miss Lake Worth* beat out *Skeeter* for a second place. Ten Moths provided the largest one-design class race in these parts since the war started. Leon Sikes' *Robin* led the Snipes with Dade Plitt's *Quest* second and Bill Netto's *Hawk* third. George Padgett's *Butterfly* and Hugh Tyndall's *Gull* finished one-two in the dinghies. In the small sail area group Buddy Thomas' *Ruthless* took first honors and then finished second to Charles Case's *Star Dust II* in the free-for-all. Case also won in the large sail area class.

▶ The West Palm Beach flotilla of the Coast Guard Auxiliary has paid $25,000 for a permanent club site on Lake Worth at 48th St. Commanders Joseph Risden, Jr, Harrison Snyder and W. T. Gibson saw the plan through. The property includes eleven buildings and a 75′ dock which is connected to the deep water harbor by a 10′ channel. The constitution of the group incorporates the purposes of the Auxiliary, and one member of the governing board is to be named by the Commandant of the Coast Guard. At Daytona Beach, a five-man committee headed by Coxswain Charles H. Moneypenny has been appointed to formulate plans for a postwar clubhouse. J. P. Neal, a member of the Reserve who runs a boatyard at Lantanna, was recently flown to Havana for sea duty aboard one of the 83-footers patrolling off the Cuban coast. In this way men of the Temporary Reserve are helping the regulars to get some well deserved shore leave.

▶ A real help in the food situation is a revolutionary type of fishing vessel just finished by the Diesel Engine Sales Company, of St. Augustine. A 65′ combination shrimp trawler and purse seiner, she can be operated with half the crew usually needed for this work and in spite of closed seasons she can be bringing food in the year around . . . . The Miami Shipbuilding Corp. has three 60′ shrimp trawlers under construction for the Forty Fathom Fish Company, all to be powered with Caterpillar diesels. . . . Charles Grafflin, formerly of the Miami Beach Boat Slips, is managing the engine overhaul division of Embry-Riddle which is expanding to handle repair service for boats as well as planes. . . . The first of five 185′ tankers under construction for the Army by the Florida Shipbuilding Corp. at Ojus near Hollywood was launched January 2nd. Called *Y-63*, she will carry 285,000 gallons of high octane gasoline. For successfully completing their concrete ship program McCloskey & Company, of Tampa, have been awarded the Maritime Commission's "M" pennant. . . . Tampa Shipbuilding has completed its fifth 2000-ton lighter barge, the 66th vessel which this yard has built for the Navy. . . . The St. Johns River Shipbuilding Co., at Jacksonville, laid the keel in mid-December for the first of twelve new type tankers. Three hundred twenty-five feet in length, these ships will have a capacity of 30,000 barrels. This figures around 1,600,000 gallons.

LONG ISLAND SOUNDINGS

By Starboard Tack

▶ What is unquestionably the most important piece of news to come over the local yachting horizon is that contained in a letter just received from Russell J. Nall, secretary of the Yacht Racing Association of Long Island Sound. Because it concerns the great majority of Sound skippers, it is here reprinted in full.

Writes Mr. Nall: "The increasing popularity of long distance, middle distance and cruise races has been evidence of the growing interest in competitive sailing. Last autumn the Huntington Y.C. drew a starting list of approximately 100 entries, which was a larger fleet than was present at many of last summer's championship regattas for the various racing classes. However, this increased interest has brought with it a confused and chaotic condition, involving many conflicts among the Long Island Sound clubs in the scheduling of these events and also in handicapping the yachts under the various formulas used.

"At a recent meeting of the race committee chairmen of interested clubs, it was decided that it was to the distinct advantage of the sport to request the Y.R.A. of L.I.S. to step into

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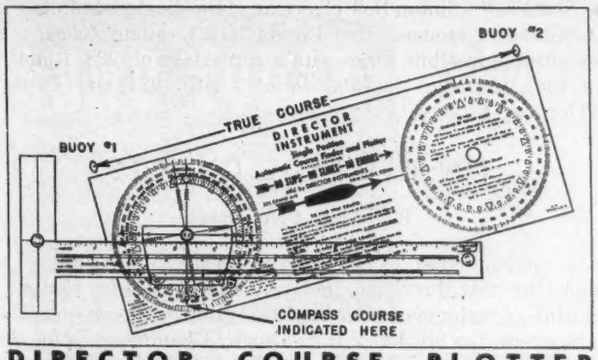

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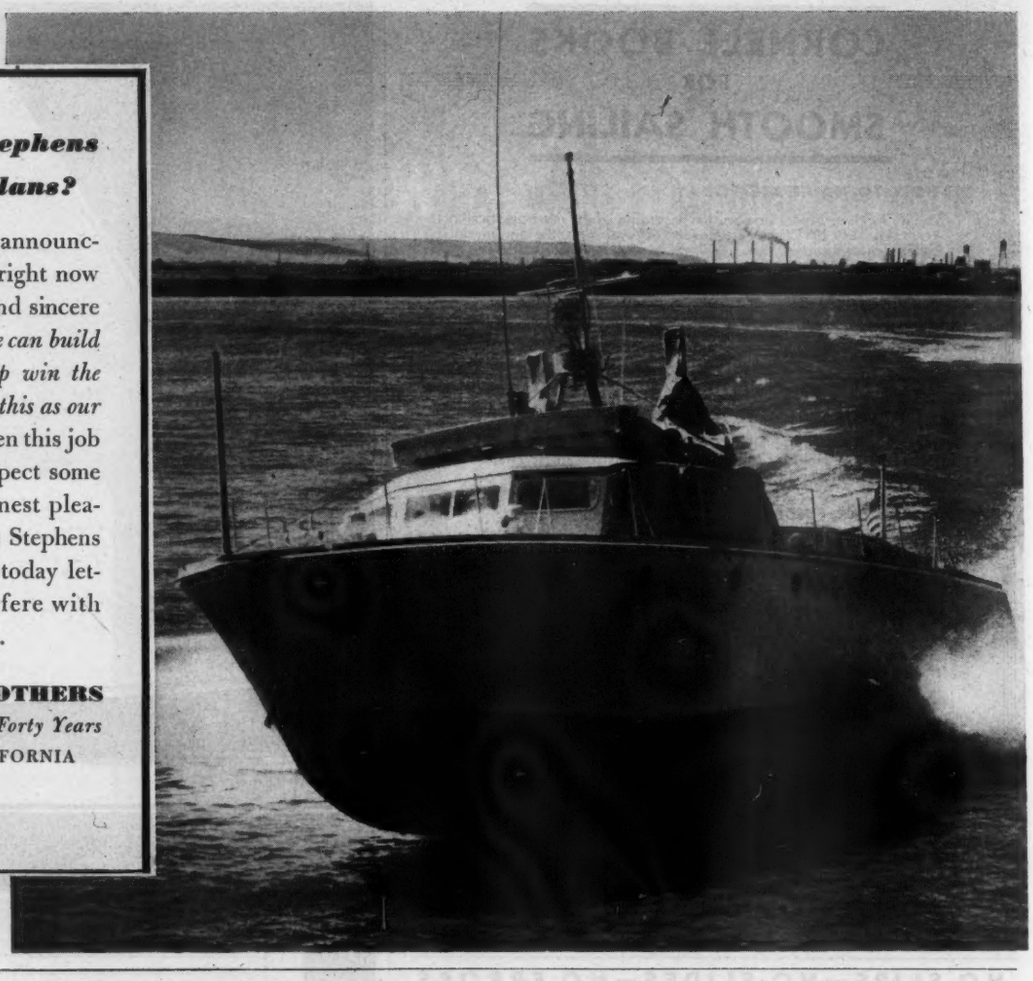

Where are Stephens Post-War Plans?

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the breach and assume control. The Executive Committee of the Y.R.A., implemented by this request, has decided, therefore, that the association will assume such authority and become the focal point for distance racing on the Sound, a position which heretofore it has occupied for the racing classes only. President Robert W. Fraser has appointed the following committee to arrange the schedule of such events for the 1945 season: J. B. Longshore, Bayside Y.C., chairman; J. M. Trenary, Riverside Y.C.; J. A. B. Smith, Stamford Y.C. This committee has been charged with the responsibility of preparing the calendar of long and middle distance events for publication at the time of the March meeting of the Y.R.A.

"President Fraser has also appointed the following committee to prepare a uniform measurement certificate: John Rodstrom, City Island Y.C., chairman; Arthur Winterbottom, Bayside Y.C.; Robert Hall, Huntington Y.C.; Alexander Gest, Larchmont Y.C. The new certificate will include all of the measurement factors used in any of the handicapping formulas that have been adopted for such races among the Sound clubs.

"The office of the Y.R.A. of L.I.S. is to become a depository for all such certificates, thus enabling any race committee chairman to have easily available any measurement data needed. To defray the expense involved, the Y.R.A. will accept for the files such certificates only from yacht owners who are either racing or sustaining members of the association. Several yacht clubs have already indicated their intention of redrafting their racing circulars for cruising events to require advance filing of the new measurement certificate with the association. The Riverside Y.C., for instance, has already sent a notice to a large mailing list that its 1945 Stratford Shoals Race will be open only to members of the association, with the exception that this requirement will not apply to yachts whose home port is elsewhere than on Long Island Sound.

"The Y.R.A. of L.I.S., now in its 50th year and occupying as it does a dominant position in the sport, takes this action in the hope and conviction that it will be a material contribution to the healthy development of yachting in the East."

▶ *Scuttlebutt:* Clinton Bell, chairman of the dinghy committee at Larchmont, announces that Ed Raymond, sailing *Zotom*, won the autumn frostbite series with a percentage of .928. Runners up were Cornelius Shields, *Dainty*, with .924 and Patrick O'Gorman, *Felix*, with .881.

ON COLLEGE CHARTS

By Leonard M. Fowle

▶ A sub-committee of the Inter-Collegiate Y.R.A. executive committee met during the holidays and drew up a tentative schedule of major events for the 1945 spring dinghy season. The basic event, the 9th I.C.Y.R.A. Dinghy Championship for the Morss Trophy, will fall on the same relative week-end as a year ago when M.I.T. stages the title regatta on Saturday and Sunday, May 19th and 20th.

▶ However the tentative schedule for 1945 calls for some changes in the order of the other major events, except for the Oberg Trophy which will open the Charles River Basin season, April 8th. The Boston Dinghy Club Challenge Cup Regatta, also on the Charles, has been advanced a week to Sunday, April 22nd; while the Eastern Championship for the Owen Trophy will be staged at the Coast Guard Academy on Sunday, April 29th. In May, the Coast Guard Academy Alumni Bowl event for the New England Championship on the Thames has been put back to Saturday and Sunday, May 12–13, while the Brown Spring Invitation Regatta for the Sharpe Trophy has been advanced from its 1944 date of May 14 to May 6, 1945.

▶ Rival skippers will learn with regret that Commodore G. Richard Worrell, whose almost perfect sailing was the sensation of the I.C.Y.R.A.'s summer and fall campaigns, has resigned as the senior flag officer of the Nautical Association of M.I.T. and plans shortly to enter the Navy. Dick piled up a truly great record during his brief intercollegiate dinghy career and it is to

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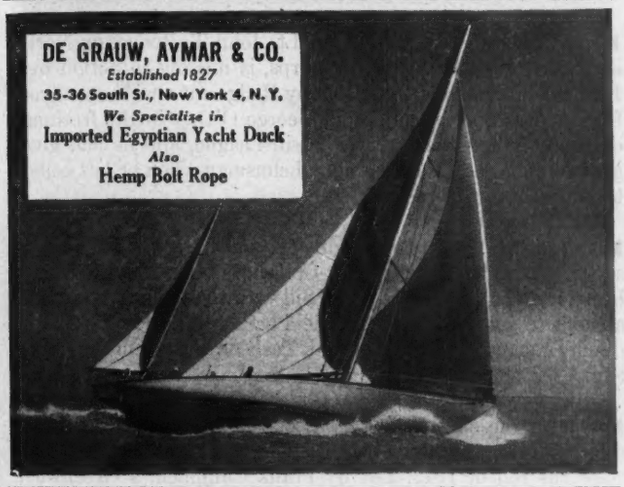

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be hoped that he will be able to carry through his present intention to return to Tech and college sailing after the war. Charles K. "Chuck" Bloomer, Tech's No. 2 helmsman, has been elected commodore of the Nautical Association to succeed Worrell, who is also I.C.Y.R.A. Dinghy Chairman.

▶ Few if any former college yachtsmen have seen more continuous action in the European theaters than the I.C.Y.R.A.'s 1941–1942 president, now Major Thomas T. Crowley, of the Army's Engineers. Tom's Christmas greeting to the Secretary and the Association, the card of his outfit, carries on its cover a coat of arms indicating the amphibious nature of his work. Inside, a German village church bearing the legend of his outfit and "Germany 1944" is surrounded by a rustic frame carrying in gold the words "Algeria," "Tunisia," "Sicily," "France" and "Belgium." At the bottom, a simple Presidential Unit Citation ribbon bearing two gold oak leaves speaks eloquently of the action seen and service performed by Tom Crowley and the men who have served with him in this unit.

▶ It is learned with regret that Lt. John T. Bodge, ex-Northeastern '45, of the Army Air Corps, is missing in action over Europe. In the fall of 1941, Johnny Bodge cut a wide swath as a freshman skipper as he bested George O'Day in the freshman division of the Charles River Basin League, and he had given great promise as a future dinghy helmsman when he left college to enter the Air Corps.

▶ 2nd. Lt. G. Stuart Allbright, the only Dartmouth man to serve as president of the Inter-Collegiate Y.R.A., was recently heard from as stationed at Fort Sill with the Field Artillery and anxious to get overseas. "The field artillery is a long way from dinghy racing on the Charles at Tech or Community," writes Stu.

▶ One of the encouraging signs of the late fall season was a rebirth of dinghy interest at Trinity, which had been inactive since the fall of 1942. Led by Frank Campbell, a Greenwich, Conn., skipper and an Admiral Billard Academy graduate, Trinity brought a 13-man team to the Coast Guard Academy for a dual meet, won by the Cadets, 135 to 83, on Sunday, November 12th. It is the hope of the group to place the Hartford college back in serious competition by the spring season.

MAINE COAST NOTES

By Lawrence B. Getchell

▶ Judging by the recent sale of five of the Bar Harbor Y.C.'s fleet of "S" boats to out-of-state owners, the class is definitely on its way out as a feature of Frenchman Bay yachting. For several years the "S's" in the Bay region have been a source of supply for other sectors where racing in this class has been conspicuously revived and it is doubtful if the Bar Harbor and Sorrento boats together now number more than a dozen. The aforementioned five boats and their former owners are: high scoring *Little Audrey* (Frank Howard); *Squidoo* (Mrs. Robert H. McCormick); *Eleanor* (Joseph Pulitzer); *Allise* (Dave H. Morris); *Albatross* (James Byrnes). It is understood that the first four boats will go to Massachusetts Bay next spring while *Albatross* is headed for an undisclosed destination. The sales were made through the Mt. Desert Boat Yard's brokerage division.

▶ Forty of the submarines built at the Navy Yard in Kittery, Maine, have been cited for their accomplishments during the present war. *Sailfish*, *Haddock*, *Trout*, *Triton*, *Bowfin* and *Sandlance* have received Presidential citations. *Haddock* has been most honored, having received five Navy Crosses, one Bronze Award and two Silver Stars; while *Trout* comes next with five Navy Crosses, one Legion of Merit and one Army Distinguished Service Award.

▶ Malcolm Seavey & Co., of Thomaston, whose plans to produce the Winslow *Four-Sum* as a stock postwar auxiliary were mentioned here last month, report having received their WPB

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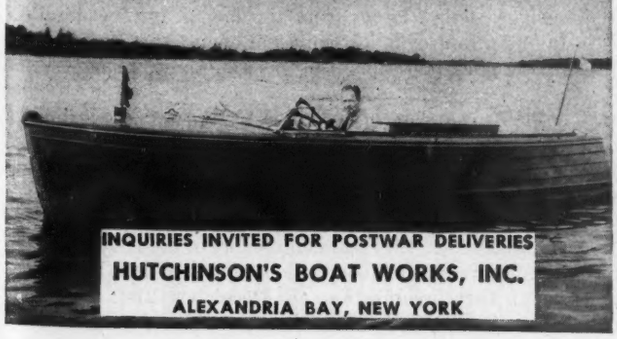

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Consequently, we find ourselves operating on a postwar "buyority" plan whereby those wanting to enjoy peacetime pleasure boating from the very start are assured early delivery of a Universal 100% marine motor. It means orders will be filled in the order they are received. A large number of boatmen are already participating in this plan of fair distribution. New names are added weekly.

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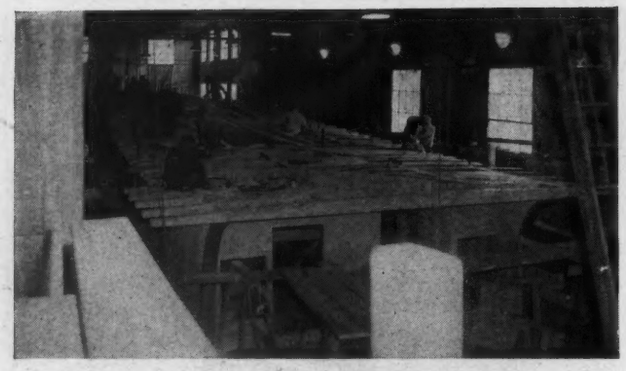

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authorization to build an experimental model of the boat and expect to have her finished in time to demonstrate next season.

▶ E. Farnham Butler, manager of the Mt. Desert Boat Yard, Inc., has informed us that his organization already has received a record number of orders for spring commissioning of boats and that inquiries for charter boats are coming in daily. The yard completed its government work in December and is now building a 33′ lobster boat while preparing for additional commercial construction. The "A" boat *Alanda* has been sold to A. P. Butler, Jr., through the yard's brokerage division.

▶ The 92-year-old schooner *William H. Jewell* sank in Rockland Harbor during December as a result of that late November storm. She was the oldest vessel actively plying this coast, having been built at Nyack, N.Y., in 1853 . . . . The 235th Liberty Ship built in the South Portland yard of the New England Shipbuilding Corp. was christened *William A. Dobson* at her recent launching. Dobson, now deceased, was chief draftsman in the Navy's Bureau of Construction and Repair. He designed the cruiser *Brooklyn*, Commodore Schley's flagship at the Battle of Santiago . . . . Over 1700 Christmas packages were distributed to out of the way points between the Isles of Shoals and Calais by the Maine Seacoast Mission's 72-footer *Sunbeam* . . . . Current construction at the Southwest Boat Corp. includes a 65′ dragger for Capt. Lew Wallace, of Rockland; a 48′ dragger for H. R. Beal, of Southwest Harbor; and a 45′ seine boat for John Bruno, of Boston.

THE SOUTH SHORE OF LAKE ERIE

By John G. Robinson

▶ A. E. Herman, well-known boat and engine dealer, has been elected commodore of the Toledo Y.C. for 1945: Other officers elected were: Eugene A. Weaver, vice commodore; G. E. Binkleman, rear commodore; Adolph Seidel, financial secretary; John V. Holton, recording secretary and Carl Affleck, treasurer. Carl H. Kuhlman, R. C. Moore, Walter E. White and Earl S. Ensign were elected trustees.

The clubhouse will be open all winter and a complete program of entertainment has been arranged including the continuation of the popular Sunday evening suppers.

▶ Frank Liephart, one of the best known sailors of the Lakeside Y.C., who left for Florida last October aboard his 42′-ketch *Idella* on an extended honeymoon with his bride, the former Esther Iverson, has notified Cleveland friends that he intends to make Fort Lauderdale, Fla., his home.

▶ T. E. Steinhart, a director of the Cleveland Y.C. and long time cruising enthusiast, who sold his 47′ Lyman-built cruiser *Mary-Jeane II* to the Coast Guard in 1942, has bought her back. The boat is now in storage at Rocky River and is undergoing extensive repairs.

▶ Commodore Dan Krug, of the Chippewa Lake Y.C., has purchased the 37′- ketch *TeDa*, sister ship of *Meteor*, one of the winners in last year's Mackinac race. *TeDa* being slightly oversize for Chippewa Lake, it would seem that the commodore will be a deep water sailor next season.

▶ O. J. "Jerry" Doyle, of the Cleveland Y.C., who chartered the auxiliary sloop *Playboy* from Jim Kopak for the duration, is installing a four-cylinder Universal engine this winter to replace the original power plant in this well-known racing cruiser.

▶ Gordon K. Douglass, of Vermilion, O., the well-known builder and skipper of International 14-foot dinghies, has designed and built a 17-footer of the same type. Douglass expects to build some Great Lakes "21s" and Interlakes this winter.

▶ Melvin L. Vixler, 1944 rear commodore of the Lakeside Y.C., of Cleveland, was elected commodore of that club at the annual meeting of that organization on December 21st. The new commodore has served, at one time or another, on practically

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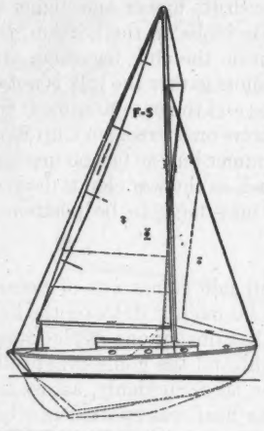

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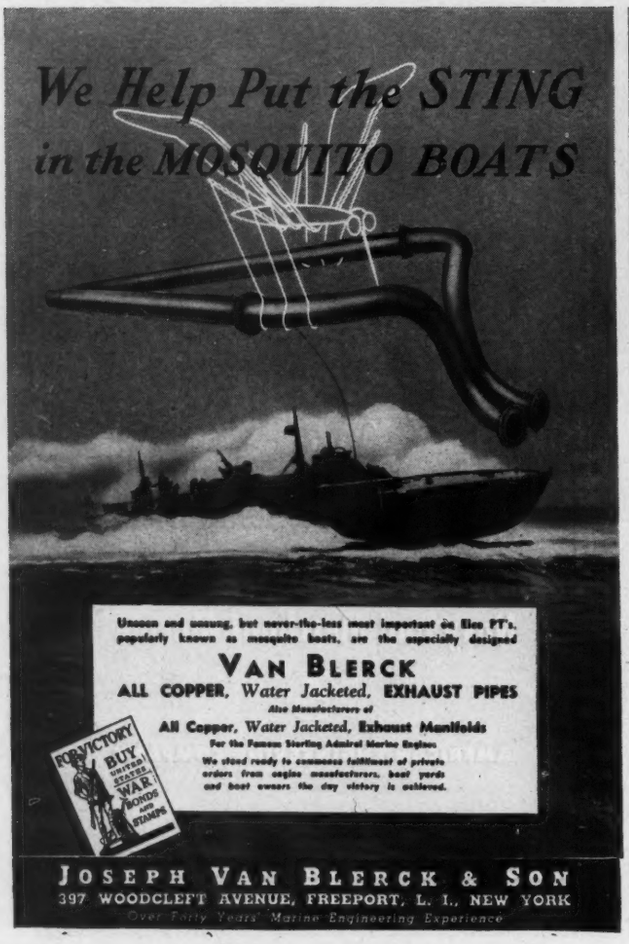
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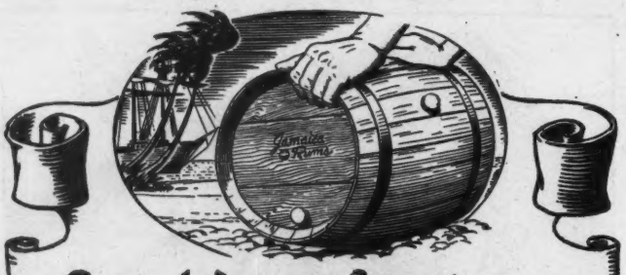

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every committee in the club. In addition to his club duties, he has been active in the affairs of the Cleveland Power Squadron, having served for two years as secretary, and is also vice commander of Flotilla 6-02 of the U. S. Coast Guard Temporary Reserve.

Ralph G. Sweeney, 1944 vice commodore, was reëlected to that office, with Charles Parks, rear commodore; Don Droz, secretary and Willis Hale, treasurer. Paul R. Gartland, popular chairman of the sail race committee of 1944, is the new measurer and Dr. Peter J. Simon will serve as fleet surgeon. Trustees elected for 1945 are: Ernest E. Clark, George Schaef, Oscar Netschke, Paul H. Gartland, Frank Maxon, Ralph Sweeney and Warren R. Plantholt.

LAKE ONTARIO NEWS

By W. Peck Farley

▶ The Rochester Y.C. is a bleak and desolate looking place as Rochester is still held in the grip of winter snows. Winds blow in off Lake Ontario piling the drifts higher and higher so that boats in the yard are big white blobs on the horizon; the basin is solidly frozen over but inside the club logs snap and crackle in the fireplace and when sailors gather the talk is not of the storm but of last summer's races and the ones to come *if* the snow ever disappears. Talk still centers on a Freeman Cup Race and a Lake Y.R.A. Regatta this summer but, so far, no meeting of the association has been called and, as the war clouds darken, there is a possibility the regatta may have to be postponed another year.

▶ Looking back to summer, a tall tale comes out of Seneca Lake Y.C. at Geneva. Breezes can be mighty fluky on the hill-ringed inland lakes and it seems that during one of the Stead Trophy Races the air was very light and the going practically non-existent on the east side of the lake. Suddenly, across the lake, nearly two miles away, a Star boat was spotted in what appeared to be a Skipper's Paradise, a brisk private breeze. *Hell Diver*, with Beebe Wilson skippering, looked like anybody's money for top place. However, a quarter of a mile from the finish line a power boat appeared and *Hell Diver* accepted a tow in. It seems the power boat had been concealed along side the boat behind the sails and was acting more or less as a "side wheeler" for *Hell Diver* all along. Lance Hoskins, sailing *Andiamo* and thinking his chances were all gone when he saw the Star skimming along across the lake, nevertheless led the fleet across the finish line. Private breezes will be looked at askance from now on at Seneca.

▶ With nearly 500 members of the Royal Canadian Y.C. in the service, fifteen of whom have made the supreme sacrifice, racing and conditions at the club are far from normal. However, wherever you find sailors and boats there are bound to be races. The three Eight-Metres, *Norseman*, *Vision* and *Quest*, sailed eight championship races; the two Six-Metres, *Aphrodite* and *Mermaid*, skippered by Bobby Barr and Jim Hyland respectively, battled out a five race series. The Star Class held eleven and the Dinghy class twenty-three races. Jack Wright was top man in the Dinghy division, winning both the Thursday evening and the Saturday series. During the season, there were also several informal interclub regattas between Royal Canadian, National and Queen City Y.C's.

Royal Canadian Y.C. will have the same flag officers for 1945 as held office in 1944, with James E. Hahn heading the list as commodore. His yawl *Nonchalant* has undergone a complete overhaul and is expected to be in commission for the 1945 season.

▶ Port Credit and Oshawa Y.C's. are both building additions to their clubhouses; all work being done by the members.

▶ Rochester Y.C. held its annual meeting in December and elected the following officers for 1945: commodore, Jonathan Heinrich; vice commodore, William Calkins; rear commodore, J. Arthur Jennings; secretary, James G. Dale; treasurer, Raymond Staub; corresponding secretary, Oscar Marth.

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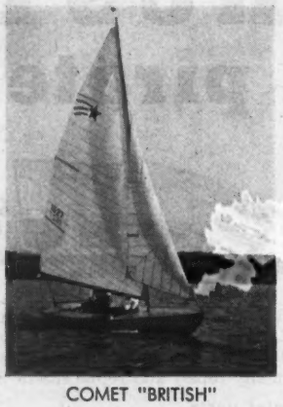

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The commodore appointed as chairmen of various committees the following: W. S. Calkins, sailing; R. W. Staub, house; R. O. Roberts, property; Al Baird, entertainment and burgee; W. L. Todd, auditing; and J. G. Dale, by-laws. Harold Field will be fleet captain for the coming season and Dr. J. Craig Potter will serve as fleet surgeon. Oscar Marth will continue in the capacity of measurer for the club.

▶ *Of this and that:* Hi Sibley, formerly light canvas man for Rooney Castle in *Stork*, is in Egypt serving with the Rehabilitation Committee. Corporal Ann Barrows of the WAC is home on furlough for a couple of weeks. Ensign Lois Dale was in town before Christmas on leave from duty in Jacksonville, Florida. Bill Nevin on his recent trip to the West Coast saw Radio Technician 3rd Class Mike Doyle at Treasure Island and reports that life in the Navy is tops with Mike.

WEST COAST BUBBLES

By Kent Hitchcock

▶ Well our good friend Captain Waldo Drake, the former proprietor of this column, is in the news again. Waldo, recently returned from a tour of duty in the Pacific, has been awarded the Legion of Merit for outstanding services as public relations officer on the staff of the commander-in-chief of the Pacific Fleet and the Pacific Ocean area. Waldo, as we have previously reported, managed to horn in on the hottest of the island battles and even came out top man in an argument with a Jap mortar shell. He is now assigned to O.W.I.

▶ It's election time again in yachting circles. Here is the way they line up so far for officers for the 1945 season: Balboa Y.C.: Donald W. Kemp, commodore; Robert L. Boyd, vice commodore; Richard Fenton, rear commodore and Harry C. Weiseman, reëlected secretary-treasurer. . . .
Hollywood Y.C.: Vern Walker, commodore; Moon Mullins, vice commodore; Jim Rogers, rear commodore and Harold Ayers, secretary. . . .
Newport Harbor Y.C.: Jim Rubel, commodore; Henry Grandin, vice commodore and Everett Morris, rear commodore. . . .
Region 12 of American Power Boat Assn.: Charlie Pansing, chairman; Dair Long, vice chairman; Harold Mason, treasurer; and perennial secretary Robbie Robinson reëlected. . . .
Associated Speedboat Clubs: yours truly hauled out of retirement as commodore; Bud Lundy, vice commodore; Clay Smith, reëlected rear commodore, Fred Thatcher, treasurer and that same Robbie Robinson reëlected secretary. . . .
Los Angeles Y.C.: Ted Conant, commodore; Paul Johnson, vice commodore.

▶ Here and there craft of our pleasure fleet are changing owners. Here are the latest reports: Ned Hill, of Lido Isle, has sold the 54′ cruiser *Fair Play* to Howard Moore, of Los Angeles. . . . Art Westermark has repurchased the 47′ yawl *Seminole*, a familiar craft to Southland yachtsmen. Art owned this fine boat for some years; sold her and bought another, and now he has her back. . . . R. M. Moore has sold the *Ecume* to Commodore H. E. Bailey, of Coronado Y.C. *Ecume* is a 35′ double ended Scandinavian sloop built in Norway in 1925. . . . Gartz Gould has sold the venerable Eight-Metre *Angelita* to Ross W. Roberts and Hubert B. Hobson, of Honolulu. She will be shipped to her new home when transportation facilities permit. . . . The beautiful old ketch *Zahma* has been released by the Navy and is being refitted to carry cargo from Mazatlan. . . . The yacht *Bali*, refitted some months ago as a cargo carrier, returned from sea recently with a whale of a hole in her topsides, the result of a foggy night collision with a tug and barge tow. She will be repaired and returned to service soon.

▶ Two of the speed boat clan have joined the fishing fleets for the duration. Tommy Ince, world record holder in the Div. II 225 cu. inch class, has put his *Invader* in wraps and is the owner and skipper of a 35′ fisherman. Paul Berry, who has competed in the 135, 225 and Midget Classes has just purchased a 32′ Monterey, which is being re-outfitted.

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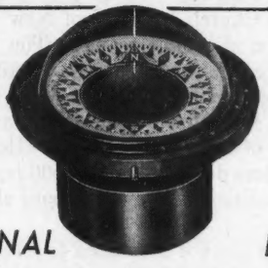

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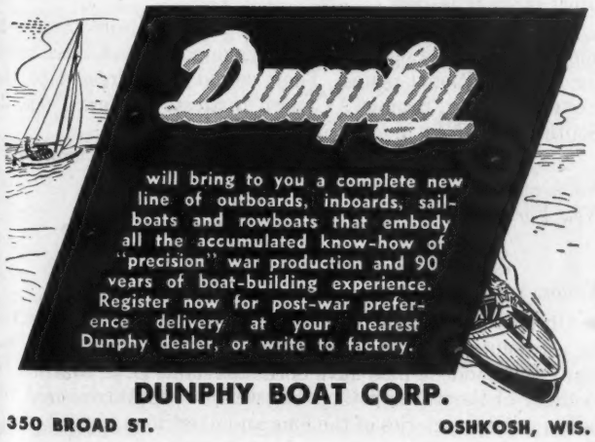

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- Pumps 550 gallons per hour at 2 ft. 375 gallons per hour at 5 ft.
- Will lift water over 9 feet.
- Requires only 36 watts — a light battery load.
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½" Pipe thread for discharge connection.

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An exceptionally sturdy complete pumping unit designed for dependable service on all sail and motor boats. Unlike many bilge pumps which are simply a shaft hole drilled in a casting and driven by a small motor, this pump contains two long oilless bearings with an auxiliary oil wick in the body and is operated by a motor of approximately double the power commonly used. All parts are produced by interchangeable jigs and are replacable.

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Model	Volts	Amp.	Price Each
BPM-6	6	6	$19.50
BPM-12	12	3	21.50
BPM-32	32	1.3	23.50
BPM-110	110	.33	26.50

14½" high Floor area 3½"x3¼" Weight 6½ lbs

Model BPA Automatic

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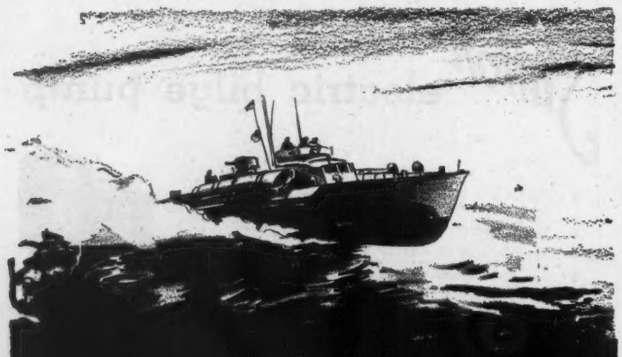

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DETROIT JOTTINGS

By George E. Van

▶ Our Six-Metre fleet continues to grow. Dr. Charles Dodenhoff is the new owner of *Alarm* which his wife gave him as a yule gift. This "Six" was owned at the Youngstown Y.C. on Lake Ontario by Jo Parker. She is the second Ontario "Six" to be bought by Detroiters during the winter. Charley Beck became the new owner of *Djinn*, of the Rochester Y.C., last month. One of the gay notions of the Six-Metre Class here is a home-and-home series for crews with the Rochester Y.M. Everybody seems willing right now and all that is needed are dates.

▶ The success of the Eight-Metre Class here is due largely to the Detroit Eight-Metre Association; therefore the ten owners of the Six-Metres here are forming their own group for "the good of the class."

▶ The Detroit B.C. gave Tom Gannon a big sendoff when he retired after 40 years of building shells for the old Belle Isle Club, which has been active in rowing since the outfit was formed in 1839. Tom intends to just "putter" from now on.

▶ Ice boating has been tough here this season, as tough as it has been at any time in the last 50 years out at the traditional spot off Huron Point in Lake St. Clair. A two-inch freeze early in December was broken up by a heavy southwest wind and the ice was driven ashore.

As a result, shale ice extends about a mile and a half out into the lake before one reaches smooth surface. None but the hale and vigorous is able to traverse this. But it hasn't stopped Howard Boston, Norm Sarns and Bill Miller from giving the rest of the Class E ice boat skippers their regular lickings. About 30 "E's" are set up on the lake.

WHAT OUR READERS SAY

Have You Any Old Books?

Editor, YACHTING:

▶ The Seamen's Church Institute of New York is greatly in need of books for merchant seamen. The Institute's Joseph Conrad Library, established in 1934, is maintained by friends who voluntarily contribute current fiction, biography, history and travel books. Of course, we purchase technical and marine books for the use of seamen. We have a "Help Yourself" shelf and our ship visitors distribute about 500 books a week to seamen of all nationalities and creeds aboard ships of the United Nations.

Because seamen are not permitted to have radios on board, you can understand the importance of books in their leisure hours at sea. Reading helps to relieve the strain of convoy duty. The Seamen's Church Institute of New York has great need for good books to meet the requests which come from seamen of cargo vessels. The magnificent part played by merchant seamen on D-Day and throughout the war has been mentioned by General MacArthur, General Eisenhower, Admiral King and other military leaders.

Books may be mailed from anywhere in the United States at the book post rate of four cents for one pound and three cents for each additional pound. They should be addressed to the Conrad Library, Seamen's Church Institute of New York, 25 South Street, New York 4, N. Y.

INGER M. ACHESON, *Librarian*
Seamen's Church Institute of New York,
New York, N. Y.

"Soldiers of the Sea"

Editor, YACHTING:

▶ On November 10th, 1775, a Corps of Marines was created by a resolution of the Continental Congress. Since that date many thousands of men have borne the name U. S. Marine. In memory of them it is fitting that we who are Marines should call to mind the glories of the long and illustrious history of the Corps and correct errors appearing in your fine magazine.

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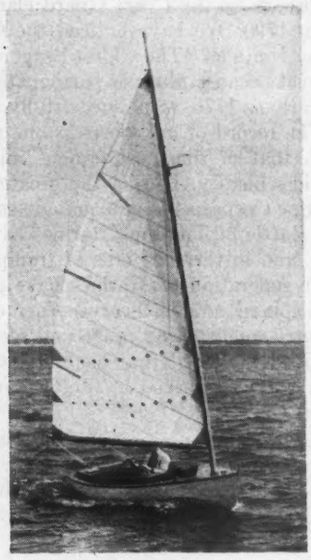

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Fig. 1151

Fig. 1140

Fig. 778

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MARINE LAMPS HARDWARE and SAIL BOAT EQUIPMENT
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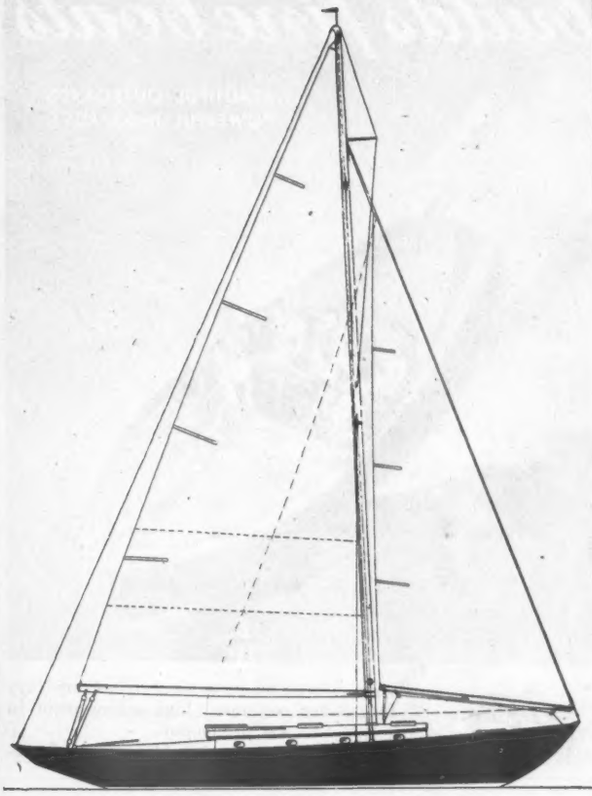
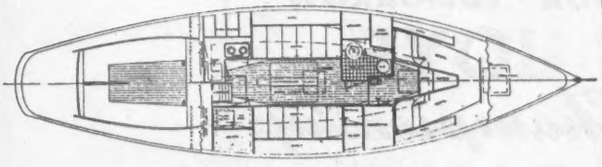
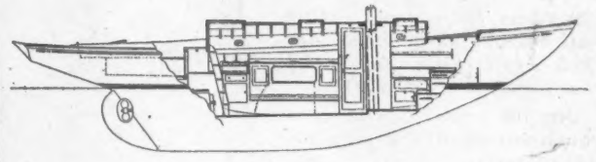
Hubert Johnson







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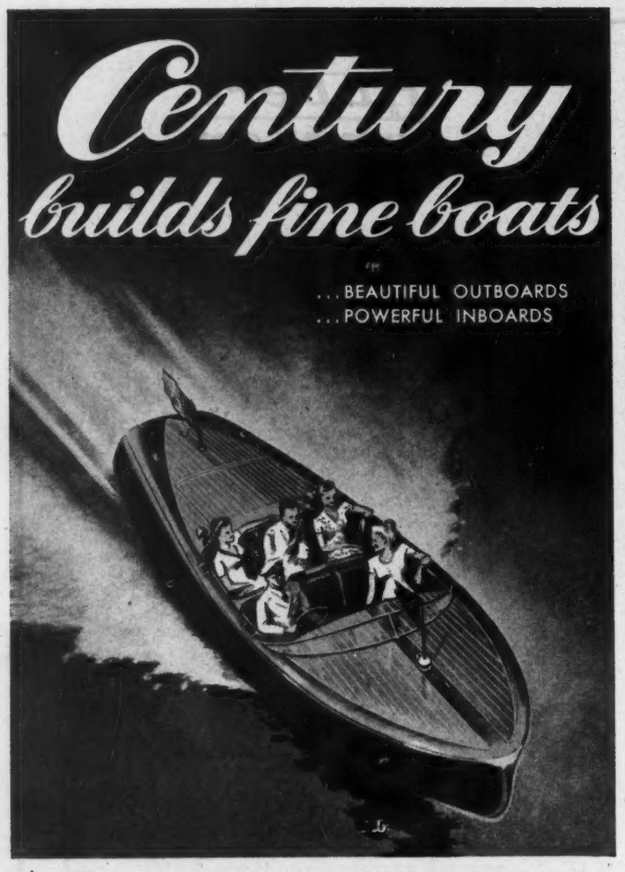

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The statement on page 73 of the June, 1944, issue is officially incorrect, as the Coast Guard claims to trace its origin only from 1790. We have noticed the Coast Guard referred to at other times as "The Oldest Seagoing Service." This also is incorrect because Marines participated in amphibious operations as early as 1776, while successfully assaulting New Providence.

The record of our Corps is one which will bear comparison with that of the most famous military organizations in the world's history. During the greater part of its existence, the Marine Corps has been in action against the nation's foes. Since the Battle of Trenton, Marines have won foremost honors in war, and in the long eras of tranquillity at home, generation after generation of Marines have grown gray in war in both hemispheres and in every corner of the seven seas that our country might enjoy peace and security. From them we have received the spirit that has animated our Corps of illustrious men who have served as "Soldiers of the Sea" since the founding of the Corps.

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F. C. Gerdes, Jr., *Stf. Sgt. USMC*
J. C. Hopkins, *Stf. Sgt. USMC*
I. Loren Baulier, *S/Sgt. USMC*

Hq. Western Procurement Div.,
1007 Crocker 1st Nat'l Bank Bldg.,
San Francisco 4, California

NEWS OF THE INDUSTRY

HASKELITE DISTRICT MANAGER

▶ D. C. Greene has been named district manager for the Haskelite Manufacturing Co. in the New York area. Mr. Greene has been associated with the company for the past eight years, and formerly represented Haskelite in the St. Louis area.

FIRE PROTECTION BOOKLETS

▶ *Your Fire Protection Insurance Policy,* a 12-page folder describing and illustrating the seven basic types of fire extinguishers in everyday use, is one of two pieces of literature recently issued by the General Detroit Corp. Information is given concerning the classes of fire each extinguisher is designed to combat most effectively. Construction specifications and Underwriters Laboratories classifications are also included. The second folder discusses the uses and features of General's vaporizing liquid type extinguisher. Entitled *So Swift, So Safe, So Sure,* it contains a full-size illustration of this utility fire extinguisher.

Copies of these two publications can be obtained, without charge, by writing the General Detroit Corp., 2270 East Jefferson Avenue, Detroit 7, Michigan.

NEW SMITH-MEEKER CATALOGUE

▶ Builders and naval architects, as well as yachtsmen, will find much of value in the new catalogue of electrical marine equipment recently published by the Smith-Meeker Engineering Company, 125 Barclay St., New York. Batteries, generators, pumps, and electrical fixtures are a few of the many items listed.

FARADAY ELECTRIC CO. EXPANDS

▶ Faraday Electric Corp., Adrian, Mich., has announced the purchase of the signal systems business of the Holtzer-Cabot Electric Co. of Boston, Mass. The Faraday Electric Corp. is a consolidation of two well-known signal system companies, Stanley & Patterson, Inc., of New York, and Schwarze Electric Co., of Adrian, Mich.

ON THE PRODUCTION LINE

▶ National Foam System, Inc., of Philadelphia, has been awarded its second star on its Army-Navy "E" pennant. . . . Goulds Pumps, Inc., Seneca Falls, N. Y. is a recent recipient of the "E". . . . The Michigan Wheel Co., Grand Rapids, Mich., has received its third "E" award; while the H. M. Harper Co. and The Hallicrafters Co., both of Chicago, have received their fifth awards.

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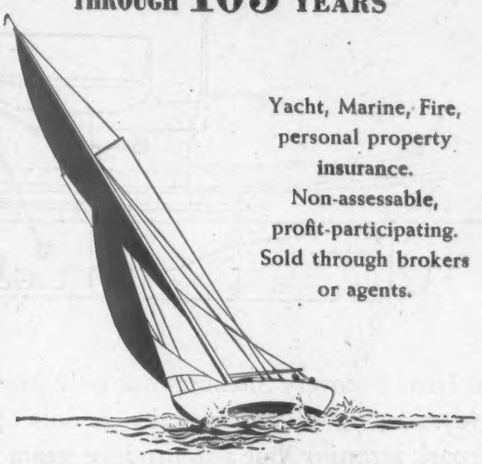

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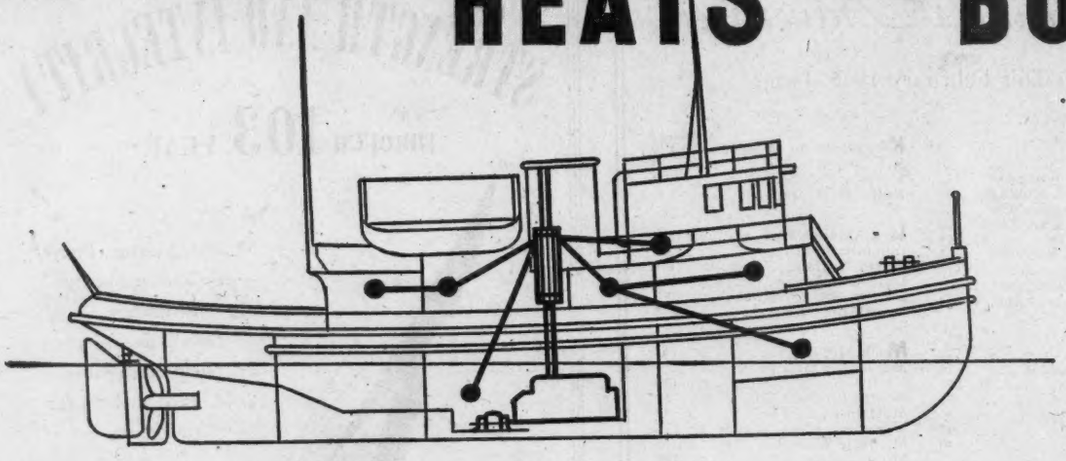

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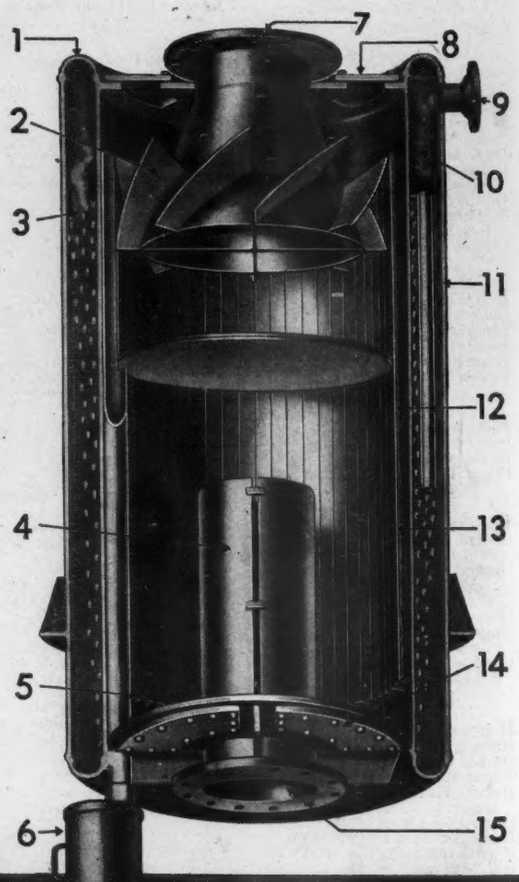

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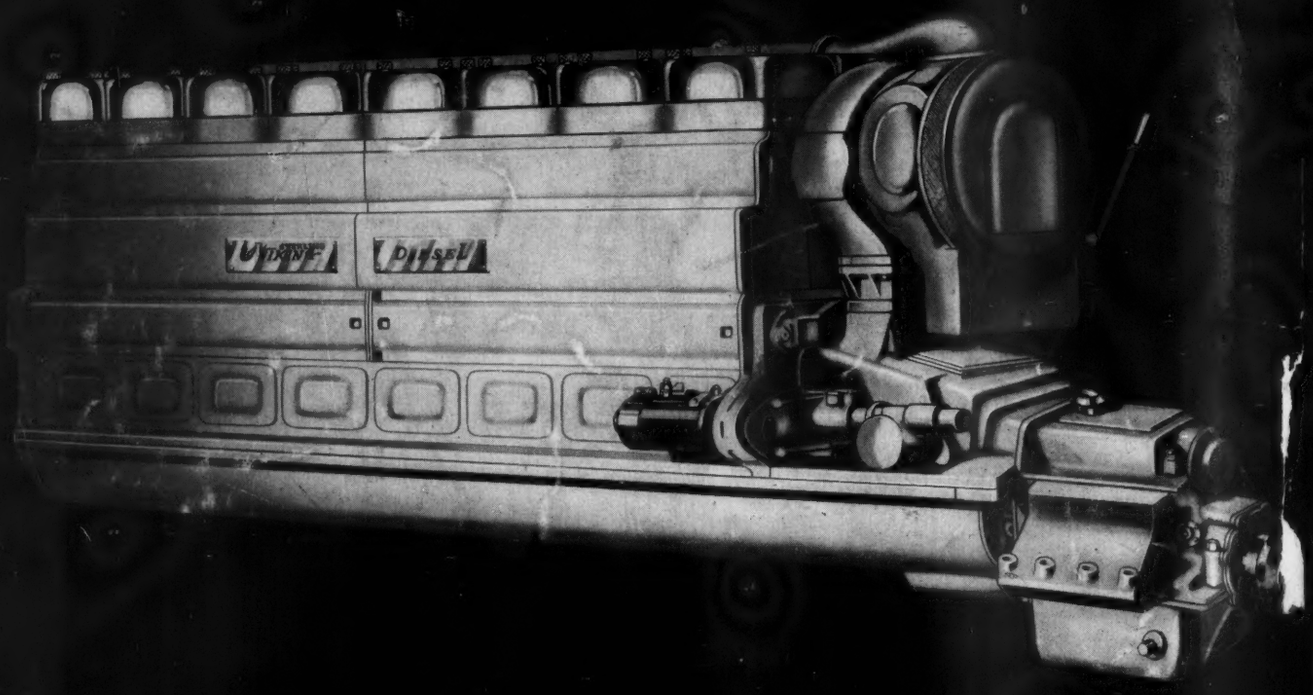

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